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AUTHOR Goodridge, R.; Layne, A.
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ABSTRACT

Premises and conditions necessary to foster the democratization of higher education, particularly in the context of lifelong education, are summarized. Attention is directed to: measures that have been followed in various countries to promote admission to and completion of higher studies; and achievements and obstacles confronted in these efforts. Special consideration is paid to democratization as it affects the disadvantaged. Based on a review of UNESCO studies, conclusions and recommendations regarding the promotion of democratization are also addressed. In addition to student admission and persistence, democratization of higher education is considered to include: making the content of education correspond to students' interests; raising the consciousness of staff/students about social issues; developing the skills and attitudes needed by students when they seek employment; making students aware of community needs; and promoting educational articulation between countries. Measures that have been followed to foster democratization involve financial, organizational, and structural efforts, and specifically field experience programs, distance education, curriculum reform, and efforts to link education, research and production. Examples from various countries and colleges are included. (SW)

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A DIGEST OF UNESCO STUDIES AND DOCUMENTS ON THE DEMOCRATIZATION OF HIGHER EDUCATION

R. Goodridge
A. Layne

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1. André Salifou, Perspectives du développement de l'enseignement supérieur en Afrique dans les prochaines décennies.(English and French versions). Unesco 1983 ED-83/WS/76.

2. Michel Carton, Tendances et perspectives de développement de l'enseignement supérieur dans la région Europe. Unesco 1983, ED-83/WS/77.

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4. Omer M. Osman, Perspectives of the Development of the University in the Arab region from the present to the year 2000, (English and Arabic versions). Unesco 1983, ED-83/WS/78.

5. S.C. Coel, Higher Education in Asia and the Pacific : A perspective study. Unesco 1983, ED-83/WS/99.

6. Study Service : a tool of innovation in higher education, (English and French versions), Unesco 1984, ED-83/WS/101.

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Note from the Secretariat

The present Digest has been prepared within the framework of the Unesco programme aimed at the promotion of the democratization of higher education and its relevance to the needs of society.

Several documents (studies prepared by independent authors as well as documents produced by Unesco itself) deal with problems posed by the offer of opportunities to new population groups to benefit from the provision of facilities of higher education. They examined several issues connected with the policies and structures, such as access to higher education and admission strategies and criteria, post-secondary education for employed persons, new alternative structures in order to meet the needs of new groups of students, community service of higher education institutions, procedures of recognition of diplomas and degrees, promotion of international and regional mobility of educational personnel, etc.

Together with the critical analysis of activities being undertaken, the Unesco Approved Programme and Budget for 1981-1983, provided for the preparation of a Digest of studies and documents produced by Unesco on the democratization of higher education.

The purpose of the present Digest is, therefore, to undertake on this basis, a systematic presentation by themes, including a critical analysis, of trends and problems observed, and measures taken for their solution, at the national and institutional levels, in terms of policy, formulation, experiments initiated and experience gained. In this sense, this Digest attempts to present a synthesis of ideas, experiences and conclusions as regards premises and conditions necessary to foster the democratization of higher education, particularly in the context of lifelong education.

Dr. R.V. Goodridge, is a specialist in higher education and is currently Director of In-Service Diploma Programmes, University of the West Indies, School of Education, Blackrock, St. Michael, Barbados. Dr. A. Layne is a Senior Research Fellow at the same University.

The views expressed in the present Digest are those of the authors and do not correspond necessarily to the point of view of Unesco.

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INTRODUCTION

BACKGROUND TO THE DIGEST

One of the major thrusts of Unesco's policies and actions in higher education since the beginning of the 1970's has been to foster the process of democratization.

This commitment was confirmed in Unesco's First Medium-Term Plan for 1977-1982 and in its biennial programmes. The following excerpt from the Medium-Term Plan specifies the nature of the activities which Unesco has been prepared to promote with a view to introducing innovative trends in the democratization of higher education:-

> "The activities as a whole should contribute to making a reality of life long education; the transformation of higher studies and the change over from systems which, in many cases, are rigid and elitist to systems which are increasingly diversified and accessible to people who were previously more or less excluded from them must be facilitated in such a way as to reduce the cleavage between urban and rural populations and between intellectual and manual workers." (para. 5722 (b) Doc. 19 C/4)

Unesco, with a commitment to life-long education as the guiding principle for the renewal of educational systems, has focussed its actual efforts in higher education on four inter-related areas. These areas are:

(1) the development of higher education and the new roles of institutions of higher learning in the context of life-long education;

(2) alternative university structures and non-traditional forms of higher education;

(3) higher education for persons gainfully employed; and

(4) community service of institutions of higher education.

In order to promote activity in these four areas, Unesco either sponsored directly or participated in a number of meetings. Meetings were held, for instance, in Sussex (U.K.) in 1973, in Moscow in 1975, in Bucharest in 1976, and in London in 1976. Related seminars were held in Helsinki (1972), Paris (1973), Turin (1973), Madison in the United States (1975), and New Delhi (1976).

Several documents were presented and discussed at the meetings and seminars. In addition, Unesco provided a number of distinguished scholars around the world with contracts to carry out studies on the democratization of higher education. Unesco has not been unaware

of the need to assess what has come out of all of the activity mentioned above. Indeed, Unesco's Approved Programme and Budget for 1981-1983 made provision for a digest of Unesco documents on the democratization of higher education. The present study seeks to fulfil that requirement.

OBJECTIVBES OF THE DIGEST

The Digest seeks to provide, on the basis of documents produced by Unesco, a systematic presentation of trends in the democratization of higher education, problems observed, and measures taken for their solution at the national and institutional levels. The presentation takes into account the formulation of policy, experiments initiated, and the experience which has been gained. The presentation is made by themes, and includes a critical analysis. Three major themes are presented. The first is the measures which have been utilized in various national situations with a view to equalizing the chances of admission to and completion of higher studies. The second is the main achievements and obstacles in the application of the concept of democratization. Special attention is paid in this connection to democratization as it affects the disadvantaged groups in the population. The third is the conclusions and recommendations which have been made in the literature regarding the premises and conditions necessary to foster democratization. This is dealt with specifically in the context of life-long education.

DEFINITIONAL AND CONCEPTUAL FRAMEWORK

Before the analysis is commenced, it is necessary to make explicit the definitional framework which is used in the Digest and, specially, to indicate the variety of ways in which democratization of higher education has generally been interpreted.

"Non-traditional groups" refers to groups who have traditionally been more or less excluded from higher education institutions. These groups include adults, workers, women, rural dwellers, ethnic minorities, migrants, elderly persons, and those persons, living in remote areas, who issue from low-income families. The term "non-traditional groups" will also be used to refer to disadvantaged or new population groups.

Life-long education is to be understood to mean:

> "all kinds of deliberate action which in an integrated and complementary way, either within the framework of school or university or through out-of-school activities and in different phases of life, aim at ensuring the transfer of knowledge, the development of every aspect of the personality, the development of aptitudes, including the aptitude to learn, and training for different social and occupational responsibilities and for participation in the progress of both the national and the international community."
>
> (CEPES, 1977: 14)

Life-long education is therefore distinguished from recurrent education which is in turn distinguished from continuous training, as follows:-

> "Recurrent education means the educational activities which, within the framework of the principle of alternate periods of initial study, of active life and productive work and of complementary phases of education, aims at broadening and up-dating of knowledge, advanced professional training, social mobility and individual development.
>
> Continuous training means the different educational and vocational training activities provided for gainfully employed people which aim at taking into account the rapid development of knowledge, of changing occupational requirements and changes in employment structures." (Ibid)

Higher education means education beyond the secondary level for persons who have completed their secondary education or have equivalent qualifications. It does not include courses and studies which, though organized by universities or colleges, aim at promoting general culture or knowledge in a strictly limited field.

Democratization is an extremely controversial concept. If, as is done in the Digest, higher education is considered to be a right of non-traditional groups and not a privilege of a particular group or class, one begins to see that the democratization of higher education is a problem which has many and varied aspects. Traditionally, the democratization of higher education was viewed by policy-makers, planners and scholars as being essentially a problem of increasing access to the institutions of higher education. Today, policy-makers, planners and scholars have a somewhat wider concept of the democratization of higher education from that which they had during the 1950s and 1960s. The discussion in these circles now tends to centre around the admission of non-traditional groups to higher education, as well as the successful completion of higher studies by those persons who are admitted to higher educational institutions, and the equally important question of the equalization of life-long chances of those who successfully complete higher studies. The Unesco documents on the democratization of higher education have dealt with these three aspects of the democratization process, especially with the first two, but they have also pointed to the need to take some additional dimensions of the problem of democratization of higher education into account.

The Unesco documents which have been sampled for the purpose of the Digest have widened the discussion of democratization of higher education by including

1. efforts to reform the content of education so as tc match the interests and goals of students;

2. efforts to raise the consciousness of staff and students about social issues;

3. Efforts to enhance the value of higher education in terms of the cognitive content, skills, abilities and attitudes needed by students when they seek or take up employment;

4. efforts to reconnect students - who will form a significant part of the future leadership - with local and rural communities, and to make the individual aware of the need to place his knowledge and skills at the service of the community; and

5. efforts to promote freedom of movement between countries through the recognition by the authorities of one country or region of studies conducted and academic qualifications awarded in another country or region.

We do not intend to provide a programmatic or prescriptive definition of democratization of higher education. However, the documents produced by Unesco have made it clear that meaningful discussion of such democratization may usefully include all those efforts to reform higher education in such a way that institutions of higher education would maximise their potential for national, regional and international development.

Our framework for discussing the various Unesco documents on the democratization of higher education is, then, one in which the learning process in higher education is considered to be an input into the general development process; one which recognizes the vital importance of examining all the strategies which lead to increased efficiency in the educational process, increased social benefits to all involved in higher education, and, in general, more effective human development. In the Chapter which follows, attention is focussed on some of the major measures which have been utilized in various countries of the world with a view to democratize higher education.

CHAPTER I

MEASURES UTILIZED TO FOSTER THE DEMOCRATIZATION OF HIGHER EDUCATION

The subject of this Chapter is the measures which have been utilized in various national and regional situations to foster the democratization of higher studies. Our aim is to describe some of the key measures which have been adopted, and not to judge whether the measures which have been adopted in some countries or regions are "better" than those which have been adopted in other countries or regions. The measures will be examined in so far as they have stemmed from policies or have clear implications for policy-formulation. The measures will be discussed under the headings "Organizational", "Structural", "Financial" and "Other". "Other" measures are dealt with in Chapter II. As one reads through Chapters I and II, it should be borne in mind that the various types of meausres have often been used together, even though we have treated them separately for the purpose of analysis.

ORGANIZATIONAL MEASURES

The organizational measures which have been described in the documents under examination relate primarily to changes in admissions policies and to the re-organization of the curriculum and course content. With regard to admissions policies, the universities have continued to cater mainly to persons in the (traditional) 18-24 age group, but reforms have been introduced to enable a growing number of adults and workers to have access to university and non-university institutions. Sweden is perhaps the country in the Western world which has gone the furthest in this respect. In Sweden, the "25:4" rule (25 years of age and 4 years work experience) has enabled mature persons to enter higher education. Some distance away from Sweden, at the University of Hong Kong, persons 30 years of age and over are able to enter most of that institution's faculties even though they do not have the formal qualifications. A few countries now have open admissions policies, and the range of measures which have been implemented to reform the admissions systems has been wide, as can be seen in Table I.

TABLE I

REFORMS IN ADMISSIONS POLICIES, SELECTED COUNTRIES

Country or Countries	Reform
U.S.A., Thailand	Open admissions (selected institutions only)
Canada	Abolition of traditional college entrance examinations; admission of students on a trial basis (selected institutions)
Eastern Europe, Nepal, Sweden, U.S.A.	Tests as an alternative to other entry criteria; age; competence; quantity and quality of work experience.
Netherlands	Lottery for admission to limited spaces within the same ability grouping.
Italy	Enlarging traditionally limited faculties of medecine and engineering by dropping special entrance requirements.
Most of Western Europe, Tanzania, U.S.A.	Acceptance of mature students; acceptance of older students with work experience, giving college credit for work experience.
Eastern Europe	Preparatory programmes.
France, Romania, Poland, India, Thailand	Quotas: bonus points to the disadvantaged and minority groups.
U.S.A.	State/regional proficiency examinations so that students complete only against those in their regions.
Australia, Canada, Columbia, India, Venezuela, U.S.A.	Grants; loans.
Burma, Colombia, India, Japan, Mexico, Thailand, U.K., U.S.A., USSR, Venezuela.	Open universities; Correspondence courses.

SOURCES: Werdelin, 1981: 26-42, Spaulding and Kargodorian, 1981:30-31.

At the same time that steps have been taken in many countries to reform admissions policies, steps have also been taken to provide a type of education in which there is a greater integration of theory and practice. Special mention may be made in this respect of what are known as "sandwich" courses or, to use the American synonym, "co-operative education".

Co-operative education or sandwich courses is a term which refers to "alternating periods of industrial experience and study, organized systematically in each case as a complete curriculum" (Adamson, 1978: 3). Engineering is a field which was among the first to have co-operative education, but many scientific and business enterprises subsequently followed suit. The practice of alternating periods of work and study seems to benefit both students (who earn a salary and gain experience) and employers, whose costs for recruiting and training are minimized (World-wide Inventory, 1980:7). The World-Wide Inventory contains descriptions of 17 co-operative programmes and, according to that source the programme at Northeastern University in the United States is the largest one in the world (ibid.).

Northeastern University, which was established in 1898, is a privately funded institution whose policy has contained a heavy emphasis on providing educational opportunities to groups who might otherwise be neglected. Special emphasis has been placed by Northeastern on extending educational opportunities to women and minorities. Northeastern adopted its Co-operative Plan in 1909, a Plan in which students alternate periods of classroom study with equal periods of paid employment or other off-campus activities related to the academic studies. Northeastern's students are employed by about 2,600 employers across the United States and the dollar earnings of the students in the co-operative programme in 1977 exceeded 32 million (ibid.: 396) Northeastern offers a undergraduate degree programmes in a wide variety of fields on the co-operative Plan through eight colleges, and has extended the Plan to the gradute level in chemistry, engineering, actuarial science, rehabilitation administration, professional accounting, business administration, and law. Northeastern has not only become the principal spokesman for the expansion of Co-operative Education to other institutions in the United States, but is also increasingly being called upon to assist educators in other countries interested in adapting its principles to their own educational system (ibid.).

The normal admissions requirements at Northeastern are a secondary school diploma or its equivalent, in addition to satisfactory performance on the Scholastic Aptitude Test and three achievement tests. Freshmen spend the first three quarters of the academic year on campus, but at the start of the second year the classes are divided into A and B divisions, one of which is on campus, while the other is employed off-campus. In this way, a co-op job is kept open all year round as the two divisions alternate on work assignments.

Other examples of co-operative or sandwich programmes exist at the Berufsakademien in the Federal Republic of Germany, the Universiti Sains Malaysia's Off-campus Unit, Ireland's Institute of Higher Education at Limerick, the Swinbourne College of Technology in Australia, the Kenya Polytechnic, and the Faculty of Machinery and Vehicle Engineering at Warsaw Technical University in Poland. Many of these programmes (at the Berufsakademien, Off-Campus Unit, Swin-Bourne College, Warsaw Technical University) are financed completely out of the public purse. Others are financed by student fees (Kenya Polytechnic) or by a combination of public funds and student fees (National Institute of Higher Education at Limerick).

All of the co-operative programmes share with that at Northeastern the basic co-op features of a close link between theory and practice and the alternation of training and work, but have been adapted to meet the special requirements of their own national situation. The Berufsakademien concentrates on middle-level manpower formation, and its students enter a contractual arrangement with employers in which they are paid a salary during the full study period whether they are attending the academy or working. The University of Sains Malaysia's Off-Campus Unit, concentrates on the promotion of educational equality among the various ethnic groups and on off-campus education for persons in economically less advantaged regions. An arresting feature of the programme at the National Institute of Higher Education at Limerick, is a modular credit system which permits flexible part-time study. At the Swinbourne College of Technology, it is the academic staff who arrange the job placements and supervise the students' work programme. At the Warsaw Technical University, on the other hand, there is an extremely close co-operation with the Motor Car Factory in the selection of students and in the supervision of the preparation of theses.

It should be stressed that in the 17 co-operative or sandwich programmes described in the World-Wide Inventory specialists from industry, business and trade unions constitute at least one-third of the whole academic staff, and that the "Zavod-Vtuz" in the USSR is a particularly striking example of the integration of industry with higher education institutions (World-Wide Inventory, 1980: 7). The "Zavod-Vtuz" is an arrangement in which a technical institution is created in a factory, and while this institution serves its workers and employers in the first place, it simultaneously forms part of an industrial complex which is supervised by the higher education authorities.

In addition to co-operative programmes, mention may be made of several changes which have been introduced with workers as a special target group. These may be listed as follows, for purposes of illustration: part-time study (Scandinavia, Anglo-Saxon countries, Finland, Zambia); evening courses (Scandinavia countries, Poland, the Netherlands, Czechoslovakia, etc.); Continuing Education Centres (USA); correspondence study (especially in connection with the Open Universities); combination of distance education and part-time study; combination of distance education and week-end vacation courses, summer school (See Werdelin, 1981: 27-28).

STRUCTURAL MEASURES

The measures which have been utilized to promote equality of admission to and completion of higher studies have also been structural in nature. These structural changes have ranged from the reorientation of the entire system of higher education (notably in Sweden), to the creation of a number of alternative institutions and programmes which coexist with the traditional (university) system of higher education. Let us begin with the Swedish educational reform.

The Swedish Educational Reform

The Swedish case is worth special mention because, instead of introducing new experimental institutions in higher education as has been the case in most other countries, Sweden has made sweeping system-wide innovations in the administration, goals, admissions policies, and programmes of its system of higher education. The Swedish educational reform of July 1, 1977, which followed nine years of research and partial reforms

> "is comprised of a comprehensive unitary network of institutions, the Hogskola, that incorporates all types of education beyond secondary school, and obliterates the traditional distinction between university and non-university education. It is an open and flexible system, with many opportunities for mobility within the system, as well as into the system."
>
> (World-Wide Inventory, 1980: 3)

The new systems in Sweden is characterised by administrative changes designed to introduce a measure of decentralization by dividing the country into six higher education regions, as well as its forthright stress on vocational training. The introduction of a measure of decentralization is something of a counter-trend to the move toward centralization which characterises most other West European countries (Goldschmidt, 1977: 38). The unique nationwide admissions policy in Sweden demands that students entering higher educational establishments in Sweden be 25 years of age or older, with 4 years of work experience; an alternative requirement is the completion of two years of upper secondary school with two years of English and Swedish (with certain other prerequisites for specific fields of study). The change in the age-requirement has resulted in a situation in which 62 per cent of the students in 1975 were over 25 years of age (World-Wide Inventory, 1980:10).

Sweden has, like other Scandinavian countries, U.K. and the United States, allowed workers to gain access to the system of higher education with less than the normal upper-secondary school qualifications, and independently of whether the students can spend the whole day studying. It is nearly always possible for a worker in Sweden to enrol in a suitable course, if not a degree programme. It should be noted, however, that the number of workers enrolled in Swedish universities appears to be small when compared with the number studying in non-university institutions. There has been a

significant increase in opportunities for persons with working-class and farming backgrounds, but the upper-class groups have already seen most of their children enter higher education as young students with normal formal qualifications (Werdelin, 1981: 37-38).

Recurrent education is one of the defining features of educational policy in Sweden. A credit point-system is in operation, and it is possible to amass credits at different times. Students are offered the possibility of completing a section of their programme of study, entering paid employment, and returning to study when convenient. They are no longer required to enrol for full degree programmes, but may attend individual courses and compile credit points toward a degree at their own place. In 1976, 70 per cent of the new entrants in the philosophical faculties enrolled without aiming for a full degree programme (World-Wide Inventory, 1980:332). Short-cycle technical-vocational courses are now available in several locations for skilled workers without the prerequisites for higher education studies, and much use is being made of distance education.

The USSR: Preparatory Departments

Admission to higher education is a matter which is given unwavering attention by the Soviet authorities. The Soviet authorities attach major importance to the development of the Soviet intelligentsia, and thus the preparation for a student's enrolment in higher education begins essentially at the start of the previous academic year (Severtsev, 1976:46). An experiment was launched in 1974-75 which allowed "gifted" students to be given exemption from some of the university entrance examinations. Of equal significance, however, was the introduction in 1969 of the policy of having higher educational, establishments run preparatory courses of one year's duration with the major aim of attracting industrial and agricultural workers and ex-servicemen.

The practice of having preparatory departments appears to be more widespread in the USSR than in other parts of the world World-Wide Inventory, 1980:10). In the USSR in 1975, there were 90,000 students enrolled in such departments in 595 higher educational establishments, and it was planned to have very fifth student enter higher education via a preparatory department by the end of the 1970's (ibid.:47). The course in the preparatory departments is intensive, and teachers from the institutes and universities work with the students in revising the secondary-school syllabus. The students who pass the department's final examinations are allowed to enter the higher educational establishments without having to take the entrance examination.

On a related note, it should be mentioned that new rules have been established in the USSR from the year 1972 to govern admission to higher education. The rules stipulate that the average marks awarded in the students' secondary-school reports must be taken into account; that greater weight must be attached to the Russian and other national languages; that young people who complete their course at a general secondary school, must work for not less than six months each year after leaving school; that the percentage of

persons leaving their technicum* and who will be allowed to proceed directly to higher education has been increased from 5 to 10%; and that there has been an increase in the specially favourable conditions for admission to higher education accorded to those leaving vocational-technical colleges (ibid.:46-47)..

Open Universities

Open universities have been established in a number of countries such as Mexico, Columbia and Thailand, with the Open University in the U.K. serving as the prototype. U.K.'s Open University, which got underway in 1971, has the most liberal provisions for entry of all British higher educational institutions (Adamson, 1978:18). It is open in principle to all persons over the age of 21 years, and its potential students can be broadly divided into two groups. The two groups are those for whom the Open University is a "university of second chance", and those for whom it is a "university of the first chance" (ibid.:77). The persons for whom the University is one of second chance are those who have had some type of higher education but not a university-type education, and those who have gained the minimum university entrance requirements, but have failed to go to university. The persons for whom the University is one of the first chance are those who have failed to gain the minimum university entrance requirements. The Open University is attempting in the case of the "first-chancers" to offset some of the social inequalities existing at the earlier stages of education, but it extends opportunities to "second-chancers" without necessarily eliminating any social inequalities (ibid.).

The British Open University is concerned not only with extending opportunities for university education to groups which were previously more or less excluded from university, but also with helping the new population groups to complete successfully their university studies. In order to achieve the second objective, and given the varied backgrounds of the students, the Open University provides only undergraduate courses leading to the Bachelor of Arts degree, with or without honours. The courses are provided at various levels of difficulty. The progress of students is monitored by continuous assessment procedures. Most of the Foundation courses attempt to be interdisciplinary. Correspondence material sent out to students is a critically important feature of U.K.'s Open University.

The open university concept is also being applied in such varied national contexts as Mexico, Columbia, Thailand and Pakistan. The Sistema Universidad Abierta (Open University Programme) of the Universidad Nacional Autonoma in Mexico became operational in 1976. It provides learning opportunities for young persons throughout Mexico, especially workers. The admission requirement is the secondary school-leaving certificate (Bachillerato). Those who gain admission are able to pursue studies leading to a first university degree, or to a certificate in nursing technician or veterinary studies. Also worth mentioning is the open university programme at Mexico's

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* Specialized Secondary Education.

Instituto Politechnico Nacional. This programme also got underway in 1976, but is financed through a federal grant, through income from the sale of materials, and through registration fees. It aims at democratizing higher education by making opportunities for studies in economic and international trade, science and technology, available to those who cannot attend on a regular basis. It aims at providing distance education to those who interrupted their studies and were unable to pursue them in the traditional system. The admission requirements are a school certificate accrediting previous studies, evidence of submission to diagnostic tests, and evidence of completion of the introductory course offered by the institution.

In Columbia, where distance learning is the most quickly growing form of non-traditional higher education, the open university system at Universidad Javeriana has been growing in importance. This institution, which was established in 1975, seeks to develop a distance education system of higher education programmes for the training of educators working in areas important for the development of the country. Most of the courses last for one year, and the students come from all parts of the country. The instructional methods consist in a multi-media system in which printed material or modules are completed by television, group meetings and tutorials.

Thailand provides yet another example of a country in which the open university concept is being applied. Up to the year 1960, Thamasat University opened up university education to citizens from all walks of life and social backgrounds. Thamasat had no admission requirements, and at that institution only two weeks of attendance at classes was obligatory for graduation. Thamasat discontinued that policy in 1960 in favour of a national university entrance examination, and Ramkhamhaeng University later stepped in to help fill the breach. At Ramkhamhaeng University which was established in 1971 primarily to provide greater equality of opportunity and access to university education for a large number of high school graduates, students are admitted without an entrance examination. Attendance is not required. Instructional methods comprise, basically on-campus classroom lectures which utilize closed-circuit T.V., summary lecture courses at 12 regional centres located throughout the country, and summary courses which are broadcast over 44 radio stations throughout the country.

Ramkhamhaeng has been able to reach a significant "new" student population because of its admissions policy, because of its wide use of educational technology, and because of its interdisciplinary approach, among other things. The following information in the World-Wide Inventory (1980:346) gives an indication of what Ramkhamhaeng has achieved:-

> "Total registered students in 1978:178,873. Male:55%, Female:45%. The annual intake of students has increased four-fold from 23,310 in 1975 to 85,256 in 1978. Owing to the University's open admissions policy, the age range of students varies from 18 to 70 years. About half (54%) of registered students come from rural areas. Students come from different social backgrounds and occupations. Most of them are high school graduates who have not been successful in the national university entrance examinations,

while a small group is constituted by Government Officials, military officers, white collar workers and company executives."

Ramkhamhaeng University appears to be the largest institution of its kind in the world (ibid.:8).

Pakistan is the final example we shall cite of the application of the open university concept. Allama Iqbal or People's Open University, founded in 1974, has been that country's most innovative break with conventional education in recent years. In Pakistan, where hardly 50% of the children of primary age attend school, where almost half of those who enter primary school do not manage to complete the five primary school grades, and where the financial resources have been fully stretched even to cope with the existing student population (Zaki, 1977:53), the People's Open University was established to provide higher education through a variety of non-formal activities. These activities include systematic self-study by correspondence, regular listening and viewing of courses transmitted by radio and television, contact with tutors at study centres, written assignments, and special practical work with the aid of special education kits. The programmes of this institution give priority to occupational courses for teachers, farmers, industrial workers and craftsmen.

The courses at the People's Open University are in two main areas, namely general education and functional education (ibid.:54). The courses in general education are for persons who have completed 10 years of formal schooling and wish to improve their academic qualifications. They are offered at the foundational, intermediate, and degree levels. The courses in functional education are for persons employed or seeking employment, especially farmers, who wish to upgrade their skills and improve their productivity. Persons do not have to leave their homes or jobs to do these courses. The admissions requirement is the Higher Secondary or Intermediate Certificate. The total student enrolment is about 25,000, made up very heavily by students in teacher education, followed in order or magnitude by students in research and development programmes, kitchen gardening, Arabic, and general education (World-Wide Inventory, 1980: 270).

Community Colleges

Community colleges have become increasingly fashionable as an alternative structure in higher education, notably in the United States and Canada. In the United States, such colleges provide the first two years of a four-year liberal arts programme, vocational education and flexible adult education, and also attempt to solve various local problems. They have open admissions policies. Baskin (1973:4) has been very critical of these colleges, noting that;

(a) they have been meant for the most part to be terminal, vocationally-oriented institutions providing skilled manpower to the communities that support them;

(b) they "have had difficulty meeting the challenge of new student clienteles in more substantive ways than admissions policies"; and

(c) they have become "acknowledged academically second-rate institutions for those students originally rejected but wanting to transfer to four-year colleges and universities and for those faculty not hired by more prestigious institutions".

This charge of "second-ratedness", which has been made by other scholars against many of the alternative structures which we are describing in this Chapter, is a matter to which we will return in the next Chapter.

Community colleges also increased in number in Canada from the 1960's when the sharp increase in the social demand for higher education created pressures which could not be dealt with effectively, merely through creating an additional number of universities. Today, Canada has at least 200 community colleges and there is every reason to expect this trend of a recognized alternative to the university to continue (Munroe, 1973:75-76). Non-university institutions in Canada have been integrated and amalgamated, with the teachers' colleges becoming universities, and the other institutions becoming community colleges. The community college concept in Canada is not identical to that in the United States. In Canada, there are three major and significantly different types of community college, namely, Colleges d'Enseignement General et Professional (CEGEPs), as found in Quebec; Colleges of Applied Arts and Technology (CAATS), as found in Ontario; and a third variant of the type which is found in Saskatchewan (See World-Wide Inventory, 1980:54-55).

To deal briefly with the three types, the 37 public and 38 private CEGEPs in Quebec offer a two-year pre-university programme, and the certificate which is awarded at the end of this programme is the sole route to university entry in Quebec. The 22 CAATs in Ontario offer technical and trades training that extends from short courses of manpower up-grading and re-training through apprenticeship training to highly demanding three-year technical courses. The CAATs are dispersed throughout Ontario to provide equal opportunity to rural, as well as urban residents. Unlike the case of the CEGEPs, the programmes offered by the CAATs are terminal.

The community colleges in Saskatchewan, which were established in 1973, differ from the other two (older) types in that their programmes are adult or community-oriented. They have no permanent facilities, and thus bring education to the students rather than the other way around. There are 15 of these colleges, one in each region of the province. Facilities are rented for each course; technical institutes, universities, or other institutions are contracted to deliver the service; use is made of the services of local volunteers. John Abbot College in Quebec, Sheridan College of Applied Arts and Technology in Ontario, and the Saskatchewan Indian Community College, are three examples of the three major ways in which the community college concept has been applied in Canada (See World-Wide Inventory, 1980:63-67) University Without Walls (USA).

The creation of a "University Without Walls" has been one of the most significant attempts at structural reform in higher education. In 1970, a consortium known as the Union for Experimenting Colleges and Universities was given financial assistance by the U.S. Office of Education, and by the Ford Foundation to develop its plan for a "University Without Walls" in the U.S.A. Planning at most of the UWW units began in 1971, and there are today, according to the World-Wide Inventory (1980:395-396) at least 26 colleges and universities in the United States which sponsor UWW units.

The UWW units have the following eight key characteristics (Baskin, 1973:18-19):-

(1) a student body which includes students from the widest possible age group and which reflects the ethnic, racial, and economic diversity of the United States;

(2) involvement of students, faculty members and administrators in the design, implementation and governance of each UWW unit;

(3) development of special seminars and other procedures to prepare students to learn on their own;

(4) Elimination of a fixed curriculum or uniform time schedule for completion of a degree;

(5) use of a broad array of resources for teaching and learning inside and outside the regular university, such as internships, apprenticeships, field experiences, programmed material, etc.;

(6) use of an adjunct faculty of persons in different walks of life as a regular part of the instructional staff;

(7) provision of students with opportunities to use the resources of other UWW units; and

(8) development of new procedures for assessing both cognitive and effective learning.

The UWW has been a unique nation-wide attempt to make higher education available to non-traditional groups in a non-traditional way in the U.S.A. Its central core is the programme of study which the student develops with the aid of his teacher. Some UWW units formalize the individualized programmes of study into learning contracts. Such contracts are generally open to modification as the student progresses through his programme. Several of the UWW units have an unusually high proportion of Blacks, and several others have developed special affiliations with schools serving and run by Chicanos and American Indians (Baskin, 1973:20). Admissions policies at the UWW range from nearly open admissions to limiting admission to persons who were not normally accepted by universities because of age or socio-economic factors. All UWW units use a questionnaire and/or interview to evaluate the readiness of applicants.

FINANCIAL MEASURES

We will now turn our attention to some of the financial measures which have been utilized. Before we deal in detail with the measures of this type, it may be useful to draw attention to the apparent slowing down in the rate of growth of public expenditure on education, and to know how the various non-traditional institutions and programmes in higher education are being financed. In 1979, public expenditure on education represented 5.6% of GNP, a figure which was only marginally higher than the 5.4% in 1970, and in the Americas the proportion was actually reduced from 6.3% to 6.0% over the decade (Unesco, Statistical Yearbook 1982: Table 2.12). The non-traditional institutions and programmes are financed either totally by the public authorities, or through a combination of public funds, tuition fees and private funds, as is seen in the following excerpt from the World-Wide Inventory (1980:11):-

> "Non-traditional post-secondary studies are financed uniquely by Public Authorities in Eastern Europe and a great number of developing countries, and in most West European countries or else they are mainly funded with public money and draw also on student's fees as with the Open University in the United Kingdom. In some instances, institutions or programmes rely mainly on tuition fees and/or on private funds and this is true of Ireland Israel and India. In other cases, when the institution is not under the Ministry of Education, Denmark's New Experiments College, for example, the financial resources are entirely private. The financing of the Danish Necessary Teacher Seminar is a case in its own right. Here, the insttution is self-sufficient not only as a result of student tuition fees, but also because it possesses its own farm and windmill (all students work one day a month on the farm with teachers also handling some tasks); when necessary, teachers also forego part of their salaries to contribute to the cost of larger programmes. In the United States, both trends are visible and institutions are financed by both public or private means. Independent university associations, foundations, businesses, industries and labour unions are active in financially sponsoring non-traditional post-secondary education programmes throughout the world. This holds true for the Summer Universities in Finland, the College of Insurance and the Northeastern University in the United States and the institutes in Southeast Asia, and in certain Arab States. With certain institutions, the tendency is to be as self-supporting as possible largely by means of reliance on endowments, private grants and philanthropic gifts."

The traditional (university) sector of higher education is financed exclusively out of public funds in the countries with centrally-planned economies, but are financed by both public and private sources in other societies.

In the East European countries, new population groups have been able to benefit from increased opportunities for higher education because of financial measures which have been put into practice by the public authorities to achieve that objective. In Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary, Poland and Romania, children of manual workers, as well as adult manual workers have been treated as special cases as a matter of cultural policy ever since the post-1945 socialist revolution got under way in those countries.

The East European countries have simultaneously developed their systems of secondary and higher education, and have planned the development of higher education according to the demands of economy and culture (Tymowski, 1976:9-10). As a group, these countries have recognized the importance of higher education for persons already employed, and have provided such persons with special leave provisions (extra holidays, release from work, unpaid leave, leave on half pay). The greatest facilities in this respect are given to students in the USSR, while Romania falls at the other extreme with students being only entitled to paid leave towards the end of the academic year for examinations (ibid.). There is some variation in the amount of assistance which is granted to cover transportation costs of extra-mural students, to cover expenses for room and board during the students' stay at the university, and to cover the purchase of books and other learning aids (ibid). The extra-mural students are usually given a fixed sum for transportation costs and make up any additional costs themselves. In the case of the German Democratic Republic, the costs are covered by the enterprises employing the students. The amount of assistance which is granted depends on the students' academic results, and in Yugoslavia agreements between the employed students and their enterprises determine which facilities will be provided. In the GDR, employed students pay 10 marks per month for the courses.

In the USSR, where legislation was passed in 1958 and 1959 to provide employed students with additional paid leave under certain conditions (See ibid:27), the following specific financial provisions have been implemented for employed students:

(1) four months' leave for the preparation of diploma projects and the corresponding examinations, as well as scholarships for that period;

(2) entitlement of part-time and extra-mural studies to one-day's leave a week at half-pay throughout the preceding 10-month period, in addition to the benefits in (1);

(3) granting to final-year students of one month's unpaid leave to enable such students to become familiar with their new job, and to collect material for their diploma project; and

(4) the granting of scholarships to these students during this period.

Shifting from Eastern Europe to Western Europe, one may use the case of U.K. to provide additional information on financial measures which have been utilized with a view to democratizing higher education. U.K.'s system of higher education is a "binary" one. This system comprises two separately financed and separately organized, but allegedly equal parts, with the universities (including the Open University) in one part of the system, and the remaining institutions forming the other part (See Adamson, 1978:3, 31-35). With the exception of the Open University, which is financed by the government's Department of Education and Science and by student fees, the universities are funded by the government through the autonomous University Grants Committee. The other institutions fall under the jurisdiction of their respective Local Education Authority.

The key to understanding the financial measures which have been utilized in U.K. lies in understanding the difference in the financing of the traditional and "alternative" sectors of that country's system of higher education. During the 1950's, many Colleges of Advanced Technology (CAT's) were created and later became normal Universities, but with a thrust which was mainly technological. A virtual halt was brought to the creation of new universities from the second half of the 1960's. The colleges which were not absorbed into the University sector, together with the polytechnics and later the Open University, became the alternative system (See Adamson:31-50). Within the University sector, students, who tend to be concentrated from the middle-classes, are awarded grants if they are accepted by a university (or polytechnic or technical college), provided that their families are below a certain income level (ibid.:19). In the alternative system, where the financing of the colleges and polytechnics is in the control of the local government authorities, the source of finance is nominally the "Rates", the British system of local taxation based on property. For educational purposes, the rates are heavily subsidized by national government funds in respect of higher education, and the mechanics which has been utilized is the "rate support grant".

In order to increase its control over overall public expenditure by local authorities in the light of its increased financial aid to the local authorities, the central government in U.K. instituted a general grant scheme in 1959. That scheme was modified in 1966 to become the Rate Support Grant. The basic principle of the Rate Support Grant is that:-

> "a lump sum is allocated annually to each Local Authority and within the limits laid down by central government via statutory regulations and notes of guidance, etc., the Local Authority is free to allocate and use this grant as it wishes. Formerly (SCC) at least, a Local Authority could concentrate on building up one particular social service to the detriment of another since it is capable of exercising discretion in using the grant across the full variety of social services. In practice, however, there are strict limitations since central government increasingly lays down conditions for the development of each social service. Furthermore, much of the expenditure incurred by Local Authority is determined centrally, for example, the salaries of teachers.

By allocation of a lump sum, central government knows in advance what its commitments are."

(Ibid.:65-66)

The largest single fraction of Local Government expenditure in the U.K. is undoubtedly for educational purposes, and the Rate Support Grant increased from £1,619 million in 1969-70 to £2,004 million in 1971-72 to £4,153 million in 1974 (ibid.:66-69). A decision was taken in 1968 to limit the growth rate of the Rate Support Grant to 3% per annum in real terms, but public expenditure on education, particularly on higher education, has been expanding at a much greater rate than 3% per year. As a consequence, the Rate Support Grant itself and the "Pooling system" * have been subjects of heated political debate.

Canada is another case of a country where financial steps have been taken to democratize higher education. In that country, enrolment in higher education increased from 90,688 in 1951-61 to 518,610 in 1971-72. While the enrolment in non-university institutions increased from 27,189 to 177,580, enrolment in university increased from 63,499 to 341,030 (Munroe, 1973:13). In order to meet the increased demand for higher education during the 1960's, the provincial governments in Canada experimented with new types of institutions and structures, (more on this later) and by the year 1971-72, there were more than 100 "community colleges". The new institutions have all been supported from public funds, are more liberal in their admissions policies than the universities, have a large number of part-time students, and are deeply involved in community programmes (ibid.:11). Still, economic and social factors continue to influence access to and completion of higher education in Canada, and equality of educational opportunity remains "distant and elusive" (ibid.:15).

The financial measures which have been utilized in Canada may be divided between those which were introduced in the 1960's - the period of expansion - and those which have been introduced since that time. The measures which were introduced during the 1960's included scholarships, bursaries, and loans, notably the Canada Student Loan Plan (ibid.:66). The Canada Student Loan Plan, which was introduced by the federal government in 1964, provides support for nearly 40% of the students in higher education. When it became clear by the year 1970 that education was luxury which the poor could not afford, that the educational system continued to selective and that the "suddent injection of student aid for the survivors...

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* This term refers to the sharing among Local Authorities of the expenditure incurred by only a few Local Authorities, particularly in regard to teacher training, advanced non-university courses, and education research.

did not strike at the roots of inequality" (ibid.), the federal government demanded greater accountability for its grants to the provinces for operating expenses. Many provincial governments adopted various mthods of university financing, with the majority choosing some form of "formula financing".

The formula is usually based on a standard instructional unit - estimated by the various categories of students and revised annually - and leaves the universities more or less free to administer the funds according to their discretion (ibid.:69). With the recent decline in enrolment, questions are being asked about the practice of formula financing, moves are being made to shift a greater share of the cost back to the individual, and consideration is being given to the adoption of variations of the "contingent repayment student assistance plan" which is now the subject of experiment in the United States (ibid.:15,69).

Australia provides us with our final example of a country where financial measures have been utilized with a view to democratizing higher education. In 1966, the Martin Committee on Education found that part-time university students in Australia had less than one chance in four of graduating, as well as that in some engineering courses, only 15% graduated, and concluded that "part-time attendance is, in general, an unsatisfactory and expensive form of education" (Martin Committee on Tertiary Education, Vol.I, 1966:76, cited in Goodman, 1976:5). The provision of opportunities for part-time students has continued, however, to be an important element of higher educational policy in Australia.

In Australia several schemes to provide financial assistance to students in higher education were implemented during the 1970's. Two of the most sifnificant of those schemes were the National Educational Training Scheme (NEAT) and the Tertiary Education Assistance Scheme (TEAS). Both of these schemes are fully described in Goodman (1976:32-35). Under the NEAT scheme - which was directed at unemployed workers, ex-service men, and married women who wished to re-enter the labour force - allowances were granted by the government for books, fees, equipment, room and board, and transport. Employers who provided approved on-the-job training programmes were subsidized by the government.

In 1974, all fees at most higher educational institutions were abolished, and the TEAS scheme was introduced. Under the TEAS scheme, financial assistance was provided for full-time study in approved courses, on a competitive basis, without reference to the student's age, but subject to a means test. In practice, the scheme was geared more to meeting the needs of full-time younger students than of adult workers who wished to pursue higher studies, and had the following specific provisions:-

> "A student who was under bond to an employer was not eligible, and there were restrictions placed on students who were already qualified or who attempted to move from course to course, merely to remain a student. Assistance under the scheme covered a living allowance, incidentals allowance, allowances for a dependent spouse or child, and travelling allowance. The maximum rate of allowance to a single student was Aul $1.400 per annum (Aul $26.92 per week)

while the married student was entitled to this also. The married student's spouse could earn up to Aul.$5,300 per annum without affecting his allowance. Thus a maximum income of Aul $6,700 per annum was possible."

(Ibid.:33)

The TEAS scheme came in for severe criticism and was subsequently reviewed. The Australian Government, which had granted Aul $3 million in 1973 for the establishment of an emergency loan fund to assist students in real need, was advised by the Williams Committee of 1975 to give consideration to a supplementary loans scheme of the type which was practised in countries such as Canada, the United States and Denmark. The present situation is one in which there is free higher education, with a means-test-based free grant and an optional loan scheme, together with special financial assistance programmes for aborigines, widows, ex-servicemen, soldiers' children and public servants.

Although we have dealt in some detail with the financial measures which have been utilized in Eastern Europe, U.K., Canada, and Australia, it should be recognized that we have not exhausted either the types of financial measures which have been utilized or the countries in which such measures have been utilized. Working students may retain their salaries when sponsored by their employers not only in U.K.,and Canada, but also in other countries such as Finland and Turkey. In Singapore, special grants may be given to in-service teachers who wish to study for a degree in teaching discipline. Indeed, as Werdelin (1981:43) found from a questionnaire which was sent to Unesco member-states, the financial measures which have been utilized have been varied:-

> The important one seems to be fully or partly paid leave... The measures include subsidies of various kinds, for example, reduced rents, reduced rates when travelling, reduced prices for meals, reduced tutorial rates for workers, free books, etc. (Sweden, Poland, Czechoslovakia and other countries), loans (Sweden, Denmark, Finland, Jordan, etc.), direct grants (Sweden, Denmark, Papua New Guinea and others), special grants to special groups of workers (school teachers in Singapore and many other countries), paid study leave for special groups (service officers in Bangladesh) national staff who replace expatriates (Papua New Guinea), and so on. In Poland the students' organization (The Polish Students' Socialist Confederation) gives assistance to working students in the form of subsidies, vacations, trips to see their own or foreign countries, materials, etc. ... On the other hand, quite a few countries reported that no particular study assistance was given to working students.
>
> (Emphasis added)

The last sentence in the preceding excerpt serves as a sobering reminder that the democratization of higher education is a process which has certainly not been completed. The complexity of the problem is further revealed when attention is turned to other measures which have been adopted.

CHAPTER II

OTHER MEASURES

Study Service

Strictly speaking study service appears to be more of a political measure than anything else in many of the countries in which it has been introduced on a national level. It may also be treated as an organizational measure since it has involved curricular reorganization in the institutions in which it has been introduced. Study service has more to do with the completion-of-studies aspect of higher education than with admission to higher education and it is relevant to the matter of successful completion of higher studies more in terms of the attitudes and values which participants are expected to have by the time they complete their studies, than in terms of whether participants receive the number of marks necessary for passing their courses.

Study service may be viewed as an important tool for the better training of qualified personnel; as a way of ensuring that by the time students in higher education complete their studies, they have greater enthusiasm for community involvement. It is an attempt to widen the participation of higher education institutions in community service in the countries they serve. It involves the reorganization of universities and their curricula to relate more closely to social goals of communities and to bring higher education institutions more in line with the objectives of national development. It is in this sense that study service is part of a discussion on the democratization of higher education.

"Study service" refers to a period of community service which is made part of the curriculum in an educational institution. A first attempt to a comprehensive definition of this term is found in Unesco's first Analytical Report (1979:2) on study-service schemes in Member-States of Unesco:-

> "Study service is to be understood to indicate a period which falls within the course of study for students enrolled in an educational institution. Students participating in study-service programmes devote a certain fixed period of time to productive work destined principally for the benefit of a local or national community or for the benefit of one's own education and for individual development.
>
> This period of service may be taken into account in the award of a degree or diploma; it may precede or follow the course of study provided; it may be linked or not with academic studies; it may serve as a prerequisite for entrance to the institution or be a continuation of the learning process or a condition to obtain an employment position after graduation. Participation in the study-service programme may be compulsory, optional or voluntary."

At least three points should be made to clarify the concept of study-service. Firstly, it is study-service in practice which defines study service as a concept, rather than the other way around; for it was only after several countries had independently decided to establish a particular type of activity as part of their educational systems, that this concept came to be known as "study-service" (Fussell and Quarmby, 1977:).

Secondly, study service has had a somewhat different emphasis in the developing countries from in the industrialized countries. In the developing countries, the emphasis in study service tends to be on expecting students to engage in service, often at a distance from their institutions; it is harder to find examples of participation by academic staff (Dickson, 1980:4). Since the 1960s, the trend in developing countries like Ethiopia, India and Iran has been to make periods of service by students, benefit the nation itself, and many countries (Ethiopia, Ivory Coast, Kuwait, United Arab Emirates) have seen study service as an important tool for community development. The fields in which community development is usually sought are rural development, literacy, post-literacy and health. (Second Analytical Report, 1980:4).

This contrasts with the situation in the industrialized countries where many Universities and Polytechnics see their responsibilities to the wider community more in terms of establishing special institutes to examine particular problems; in the outreach of an extra-mural department; or in their faculty members taking on consultancy work for government ministries or commercial companies - rather than perceiving their students as being capable of contributing to national development or local needs. Whilst individual students may engage in community action projects or voluntary work on their own initiative, examples of their curricular involvement in service, as an integral part of their studies, are still comparatively rare. The exceptions are mostly vocational courses - social studies or engineering for example - where practical experience is required as a necessary element in their professional training rather than as a response to an urgent problem affecting the community (Dickson, 1980: Appendix I).

In industrialized countries such as Canada, Finland, Norway, the United Kingdom, the United States of America, and in many socialist countries, study service programmes contribute to linking theoretical knowledge and practical training and to ensuring participation in service to the community. In the U.K., various programmes of study service combine technical training and practical work in the community, and in the Byelorussian and Ukranian Socialist Republics, study service is viewed as part of the educational process. Finland and Norway as well as Romania stress the educational value of study service (Second Analytical Report, 1980:4).

Thirdly, the fact that study service is <u>obligatory</u> in many countries as a matter of national policy in higher education, suggests that such schemes often have objectives over and beyond the mere integration of experience into the educational framework. Unesco's Analytical Report has observed that study service schemes in many countries are based both on the principle of integrating experience

into the educational framework, and on the principle of obliging higher education to reconnect students to, and involve them in, what is going on in society (Analytical Report, 1979:2). The fact that the students participating in study-service schemes performs community service which is normally related to their own field of study must be seen in countries with national study-service schemes as part of a process which is essentially political.

Ethiopia and Indonesia are two striking examples of countries in which a period of community service is required as a part of the curriculum. In these countries, a period of continuous, full-time, long-term community service is a curriculum requirement before the final year of study; and other countries which appear to be taking steps along the same road include Nigeria, Ghana, Thailand, India, the Philippines, Sri Lanka, Zambia and Kenya (Fussell and Quarmby, 1977:3-5).

The Ethiopian University Service (EUS) was established in 1964 when all students enrolled at Ethiopia's only university were required to serve for a year in development activities in rural areas as a part of the curriculum. The year of service normally came before the final year of study. Most of the students gave community service as secondary-school teachers. When the EUS was suspended with the political changes which Ethiopia experienced in the first half of the 1970's, a system was implemented in which all students have been involved in the government's "Zematcha" campaign of information and development work in rural areas.

In Indonesia, a policy was adopted in 1972 in which all university students have been required to carry out at least six months of service in village-level development work as part of the university curriculum. This service requirement, which is known as the Kulish Kerja Nyata (KKN), is being gradually introduced, usually into the year before the final year of academic study. The students work in general village-level community projects.

Nigeria and Ghana are two additional cases in which the period of service is obligatory. In Nigeria, the federal government introduced a policy in 1973 in which a year's service in the National Youth Service Corps (NYSC) was made a requirement for all students graduating from universities. A similar scheme has been introduced in Ghana. In both of these countries, the pressure appears to be mounting for students to meet their service requirement long before they graduate.

It should be stressed that not all of the study-service schemes in developing countries are compulsory. In the case of Thailand, Thamaset University created in 1969 the Volunteer Graduate Certificate Scheme, now known as the Graduate Volunteer Centre or GVC. This is a programme through which new graduates from various universities can volunteer to spend about six months in village-level development activities, mainly as school teachers, in return for an extra educational qualification, that is, a certificate. In addition to the GVC, there is the Maeklong Integrated Rural Development Scheme (MIRD), in which a few students from three universities serve in village-level development work as part of a particular course of study which is an option in their universities.

In India, a National Service Scheme (NSS) was set up by the Ministry of Education and Social Service in 1969, with a view to making higher education more meaningful and socially relevant (See World-Wide Inventory, 1980:166). To achieve that end, regular and special camping programmes have been established. The regular programme deals with health, sanitation, nutrition, adult education, economic improvement, recreation, blood donation, traffic control, and the planting of trees. The special camping programme concentrates on the solution of specific problems of national development in accordance with a theme selected every year. The latter programme started in 1974 in response to severe drought conditions and continued the following years in the form of campaigns such as Youth Against Famine, Youth Against Dirt and Disease, or Youth for Afforestation and Free Plantation. The theme for 1978 was Youth for Rural Reconstruction and Adult Education. The Government of India started a National Volunteer Service Scheme in 1977 in order to intensify the volunteer efforts, and to involve students for a longer period in constructive and developmental work.

A State Advisory Committee has been established to co-ordinate the NSS under the chairmanship of the Minister of Education and Social Welfare. The Committee operates through four zonal Deputy Programme Advisers, ten regional centres and the University and College Level Advisory Committees. The Delhi School of Social Work and the Tata Institute of Social Sciences have been given by the Ministry of Education and Social Welfare the responsibility for evaluating the NSS programme, and for providing advisory services to the Central and State Governments and universities on matters related to the NSS.

The duration of service varies according to the particular programme: 12 1/4 hours a year for the regular programme, at least 1 1/4 days for the special camping programme, and one year for the National Volunteer Service Scheme. The NSS students are expected to adopt a village area or an institution to carry out their work, and about 25,000 villages have been adopted by NSS units of the colleges and universities throughout India for regular and special camping programmes. Approximately 200,000 students now participate in NSS activities each year, and various universities are experimenting with developments from the basic NSS approach (Fussell and Quarmby, 1977:4).

In 1977-78, Unesco carried out a survey on the experiences which its Member-States had in the area of study-service. Twenty-seven (27) countries provided useful data, and those data were incorporated in an Analytical Report by Unesco's Director General. According to that Report (1979:3-4) the objectives of such programmes are mainly educational, political, social or economic and there is in most cases a combination of two or more of these objectives. The following list is illustrative of the emphases: the educational value of the experience to the students (Guyana, Brazil, Mali, Zambia, Norway); education as a means of fostering a sense of social responsibility, and as a factor of social change (India, USSR, German Democratic Republic, Czechoslovakia, United States); educational as a social and economic benefit (Mexico, Brazil, Indonesia, Thailand, Morocco, Poland); education as a means of accomplishing social goals (Mozambique, Somalia, Tanzania, Cuba, Eastern Europe). Once again,

however, it must be emphasized that the objective of these schemes is basically political, whether or not the political objective is made explicit.

Information is available on the duration, continuity and timing of service, and on the links of the service with the field of study in 27 countries (see Ibid: 6-7, 9). Continuous service is practised in Cuba, the German Democratic Republic, India, Czechoslovakia, Brazil, Mozambique, Costa Rica, Tanzania, Somalia, and in the US-ACTION or 1 year "experimental" learning programmes in the United States. Periodic and spaced-out service is illustrated by schemes in operation in Guyana, Mali, India, Brazil. The evidence seems to suggest that spaced out periods offer better opportunities for students to combine theory with practice, to have a feedback in their theoretical studies, and to benefit from a diversity of experiences (ibid.:6).

These are at least the following variations in the timing of service in the academic course: a period before the academic course (Tanzania, Somalia - where such service is a pre-condition for access to the university); service early in the course of studies (Kamatek University and Tata Institute of Social Sciences in India); service parallel with the study course (NSS in India, the camps in the GDR "July Activities" in Mozambique, "Fourth Term" in Tanzania, vacation service in Indonesia); service half-way through the academic programme, the four-year programme at the University of Guyana); service coming late in the period of study (Mexico's Polytechnic Institute, internships programmes in the United States); service after the period of study (Thailand, Nigeria's National Youth Service Corps, Egypt).

In several countries, participants in study-service schemes with a professional orientation do field work in the areas of their study: medecine (Indonesia), dentisty (Mexico), agriculture (India, Guyana), social sciences (Indonesia, India, Norway, Ireland); construction and timber industries (Czechoslovakia, Poland), teacher training (Iraq, Norway). In the United States, both internship and the ACTION programmes are related to the fields of study and the students are given a full year of academic credits for them. While the link between the type of service performed and the field of study exists generally, the link is not an exclusive one.

Over the last few years there has been a significant numerical growth and expanding role of study service. New institutions such as the University of the Arab Emirates (established in 1977) and the Yarmouk University, Jordan (established in 1974) have demonstrated their keen interest in community services to be performed by their students.

The second Analytical Report, 1980, which deals with information provided by Member States, several United Nations agencies, intergovernmental organizations and non-governmental organizations in response to a Unesco circular letter fills out the picture with regard to

(a) the major trends which emerge in respect of the objectives of study service and its expansion, variety of programmes and possibilities of international co-operation; and

(b) problems and difficulties encountered.

This section will deal with (a).

From the information provided in the recent survey, the objectives of study service seemed to have been elaborated and enriched. As has been indicated, the objectives of study service programmes are mainly educational, political, social or economic: in most cases, there has been a combination of two or more of these objectives, which were generally closely linked. Study service is said to provide students with practical training and to make them understand better the world of work so as to be better integrated in their future professional life and to improve their employment opportunities upon completion of their studies (United States). It helps the students to become familiar with their field of specialization (Ethiopia, Jordan, Zaire). It contributes to a deeper link between institutions of higher education and scientific establishments (Byelorussian Soviet Socialist Republic, United Arab Emirates) It consolidates students' theoretical knowledge (Cuba, Bulgaria, Ukranian Soviet Socialist Republic). Study service, it is claimed, has proved its social and economic usefulness as well as its function in linking education, and in particular the universities, to national realities (Bulgaria, Ethiopia). It contributes to the appreciation and solution of problems which demand an interdisciplinary approach. (Second Analytical Report, 1980: p4).

In the same survey, new dimensions and implications of study service are underlined by some respondents who recognize the dignity of labour, self-reliance and a balanced development of intellectual and physical personality of the students (India, the responding socialist countries). Others view it as a force for combating tribal arrogance (Sudan), promoting national integration (India) and creating moral values (Ethiopia).

It would appear that the variety of programmes is determined by various factors depending on the type of linkage between study and service, and the type of activities included under the service components, the duration of service period, the nature of service (continuous, phased or one-time experience), remuneration or honararium for service rendered, the quality of participants, both students and staff or students only, built-in evaluation of participants' performance or absence of any evaluation. (Ibid, p.5).

Two important issues have continued to surface:

(a) whether the service should be voluntary or compulsory and

(b) whether it should be a one-time experience or a continuous concern of the students.

The answer essayed by the Second Analytical Report is that it depends on the specific socio-educational circumstances and the results expected. Whereas the integration of study service activities within the educational process as a whole is essential, the question of whether study service is compulsory is not a determining element. The voluntary nature of service could perhaps be more appropriate

in cases where students perform service unconnected with their subjects of study. What matters, this report sresses, is that each member state must pay due regard to striking a rational balance between the needs of the local and national communities and personal interests of the participants (Ibid, p.6).

On the second question, the following point is made. Independently of the different forms that study service might take, it seems that the programme of 'one-time experience' is not generally considered valid; on the contrary, the continuity and regularity of service would appear to have more lasting effects for the community as well as for the individual participant. The formative as well as the educational goals gain when regular practice consolidates attitudes, skills and knowledge, and when, through regular commitment to the economic and social problems faced by the nation or the local community, the consciousness and outlook of the participants about the problems of our times are felt and worked out (Ibid, p.6).

The information received also indicates that some forms of international co-operation have emerged in the last few years. Students from Goshen College (Indiana, United States) and the German Democratic Republic have done study service abroad, contributing to the satisfaction of the needs of communities other than their own. Cuban students participate in literacy campaigns and as teachers in other developing countries. The Food and Agricultural Organization has also referred to a good example of a national agricultural study service programme with international co-operation in the Philippines. The Philippine Government has launched jointly with the United States Agency for International Development (USAID) an undertaking called Agricultural Education Outreach Project. The project involves what is hoped to become a novel approach to extension work by utilizing resources of seven selected colleges of agriculture, particularly the students, to hasten the flow of technology from institutional sources to the farmers (Ibid, p.6).

This section of the digest has outlined the development of study service schemes over the last twenty years; the variety of approaches employed; the combination of educational, political, social and economic objectives of study service schemes. Major trends in the objectives of study service and the forms of international co-operational which have been emerging, have been identified. That study service schemes have potential for the democratization of higher education can hardly be in doubt.

The point has been well made that it is important that those who will hold leadership positions in politics, administration, business education etc. receive part of their education through living and working in rural communities, exposed to the realities of life in these communities. Also, that the effects of this particular form of democratization of higher education on the nature of the future leadership of these countries is likely to be profound. (Fussell & Quarmby, 1977:11).

The interest of International Organizations like the U.N. Secretariat, W.H.O., I.L.O., in study service is clear and Unesco itself has been invited (Democratic Republic of Sudan and Yarmouk University) Jordan) to assist in regard to study service schemes. Generally, there is evidence of growing concern of an increasing number of Unesco Member States to orient their programmes of higher education toward both "theoretical understanding and practical applications of knowledge", and more and more calls for inter-institutional, regional and international co-operation.

In an effort to clarify the first attempt of a scheme, the second Analytical Report has concluded that study service "whether voluntary or compulsory is an integral part of the process of education and should cover multiple activities of the students during a period of time outside the classrooms which have as an aim the active participation of students in the solution of the socio-economic problems of a local or national community, and to the development of the university, as well as for the civic and pre-professional formation of future specialist within the framework of his personal development". (Ibid, p.7).

Unesco has also concluded on the basis of the experience of Member States, that on the level of the educational system itself, activities concerned with study service should be viewed within the framework of the overall policies for higher education closely related to the needs of society, to the contribution of higher education to development and social progress, including rural development and literacy work. It is also felt that study service programmes might be conceived and implemented within the international framework for development, so that participation of students, notably in the developing countries, could be ensured in the overall implementation of the national development strategy and eventually contribute towards the establishment of a new international economic order. (Second Analytical Report, p.9).

As for the implications of study service for higher education institutions themselves, Dickson refers to the perspective offered by Professor Alec Ross in a paper delivered at a conference in the U.K. in 1980 on Universities and National Development: Contributions to the Community. On this occasion Professor Ross said,

> "The broad aims of university education can be grouped as those to do with teaching, research and service to the community. Traditionally the first two dominate and the third is given attention only if funds permit. Fortunately some universities in developing countries provide examples of how public service cannot only be brought forward in the list of priorities, but can also be the organizing principle around which the first two find their place. It is false to think of teaching, research and service to the community as being compartmentalized: the three can be inter-related, each informing the other." (Dickson, 1980, Appendix 2).

Professor Ross holds the view that the university curriculum can be regarded as the means of focussing the intelligence and skills of a country's most able people upon the problems of their locality,

region and nation. To quote him once more,

> "We can see the impact of 'service to the community' as an aim in two ways. Firstly by ensuring that the problems of the local community are featured in the teaching and research of the university, but secondly by extending the scope of the university teaching to the many who remain without." (Ibid).

Study service therefore constitutes an important challenge to institutions of higher education, both in developed and developing countries to reorganize their curriculum for students to benefit from academic training and practical experience; to assist their students to benefit from clear perception of social needs and to develop a greater sense of social responsibility from the study service experience; to identify important problems that these institutions can help to clarify and solve. Greater attention might therefore be paid to the value of study service as a concrete input both to the development of qualified resources at the individual level and to the better application of human resources for the achievement of broader development objectives. (Second Analytical Report 1980:5).

Two final points: Firstly, efforts in study service have so far been mostly concentrated on socio-economic (rural development, health) and education (literacy) aims. Attention is drawn to the position taken in the Second Analytical Report that a broad area of action, especially the one concerned with social problems and wider cultural interests, needs some attention. The argument is made that a wide range of activities could be explored in helping to face situations like women's position, child care, sociological research and help for various forms of cultural amateur groups, including those dedicated to music, literature and appreciation of art. (Ibid, p.10).

The second point is that there remains the challenge of how to assess the performance of students in study service programmes without distorting the purposes of these programmes. The very nature of study service suggests that emphasis must be placed on the assessment of learning through experience and on the contributions made to the needs of the individuals and communities being catered for and not on reward of "systematic selfishness", i.e. mere concern with obtaining good grades and ultimately the best jobs.

Linking Education, Research and Production in Higher Education

The problem of linking higher education to the world of work and to research as well as linking research and production at the higher education level has received much attention in recent years both inside and outside the academic world. One of the reasons behind this interest lies in a widespread disillusionment on the part of society and the general public with higher education which is often blamed for failing to meet either social needs or the aspirations of the individual (Report of the Seminar on Education, Research and Production, Unesco, 1981, p.105).

This criticism is particularly inspired by the fact that in many countries graduates of higher education institutions encounter difficulties in obtaining satisfactory jobs, which is attributed, at least partially, to a type of training very often judged to be too theoretical and of little relevance. Society is not prepared to tolerate a situation whereby enormous public expenditure on higher education seems to result in producing growing numbers of unemployed or underemployed degree holders. The effective linkage of education and work appears to be one of the means of improving the situation.

It should be understood, of course, that the problem is not specific to higher education. In fact, it applies to all levels of the educational system. However, the traditional University has had few, if any, links with the production sector. As a result of a long academic tradition, teaching and research have often been divorced from applied purposes, including production and the three components - teaching, research and production - have developed with a high degree of autonomy.

The assumption behind the development of close links between the university and the production sector is that the effective participation of the individual for active and productive life can best be ensured if the educational process is closely connected with and parallels productive activities. Moreover, because of the extremely important role of science and technology in development, research which is commonly considered inseparable from the teaching-learning process of higher education institutions has become an important agent in contemporary production activities, and thus constitutes a natural link behind higher education and production.

A word of clarification seems to be necessary on the use of 'production' in this context. The working paper for the Sophia Seminar in 1980 defined production as "the end result of the teaching-learning process and research activities conducted jointly in the course of studies and in association with productive activities in a real work situation." Seminar participants stressed that they understood production to imply 'not only the production of materials goods but also intellectual work and services related to government and community activities'.
(Ibid, p. 107, p.12). It assumed that the result of productive activities thus conceived will be of social or economic value.

Efforts to link Education, Research and Production in Higher Education in selected Countries

In the United States, the full combination of education, research and production has existed for a long time and very successfully in the area of agriculture. The American land grant universities combine regular graduate and undergraduate instruction in agricultural fields, basic and applied research at the so-called experiment stations, and direct links with the agricultural producers through the extension service. This model has been applied in some higher education institutions to fields like engineering and management; where, however, the linkage generally concerns education and research. Yet it would be true to say that even though research is a long standing tradition of American universities, research in these universities is basic research; applied research is primarily

carried out by the production sector. Because of the diminishing time lag between basic research and its applications universities are often left behind, with inadequate feedback into the curriculum (Ibid, pp. 12-13).

Japan offers a somewhat different picture. Close cooperation between higher education institutions and industry in teaching and research activities is a characteristic feature of Japanese society. Japanese universities encourage specialists from industry to obtain post-graduate degrees through a non-formal system of studies set up by the universities and the system is particularly attractive to young researchers in industry who for one reason or another did not receive formal graduate training. Specialists from industry and governmental research laboratories are called upon to present practical problems in universities and students in turn receive practical training in the productive sector related to their curriculum. The supply of sophisticated laboratory equipment by industry to universities permits universities to undertake complex fundamental and applied research on behalf of industry and at the same time results in retraining facilities for industrial personnel.

In Bulgaria, the training of university specialists is organically related to research and production. The goal is to train broad profile specialists with wide-ranging interests. This is achieved by transforming the instutitions of higher learning into complex teaching/research unity where pure and applied research are inseparable from the teaching learning process. Institutions of higher teaching are linked with material production and both students and staff can pursue research work. To complete the 'study-work' cycles, higher education institutions are functionally integrated with organizations for research and development and with industrial enterprises; continuity of the process is assured here through the state plan for scientific research and the utilization of research findings. The unity between research and consumer demands determines the involvement of the teaching staff and students in the productive spheres. The results of applied research are promptly utilized by the economy, and by the universities' relevant units. It is to be noted that in 1980, 35% of all research findings were applied in practice and had economic and social effects. (Ibid, p.16).

In the U.S.S.R. there has been continuous research over a long period to find the most rational forms and methods of teaching in combination with production. Practical training is an essential feature in all higher education institutions, taking up more than 10% of the curricula in terms of time. A traditional feature of the Soviet higher education system is the project-oriented study with elements of research based on concrete economic and social needs. Moreover, students are encouraged to do research work at university departments and in special research laboratories for students. Over and above formal studies, student voluntary production teams represent one of the most effective examples of student social activities at the same time that they constitute a useful means of combining education with work. (Ibid).

During the last decade, one feature of the U.S.S.R. higher education has been the acceptance of the concept of wider specialization in the institution of higher learning with more attention given to teaching in the fundamental disciplines. At the same time, in order to take account of the needs of concrete production units and facilitate the adaptation of graduates to these needs, one year probationary training period combined with work have been introduced for the fresh graduates of all institutions. These training work activities are carried out in the enterprises under the joint supervision of the institution and the enterprise. The linkage of education, research and production is greatly stimulated by the setting up of branches of the institutions departments in industrial enterprises. The U.S.S.R. has since the mid 1970s moved towards creating a closer link between higher education and production by developing education-research-production associations.

Similar trends have been in evidence in developing countries. Two new universities in the Sudan (Juba and Cezira), established in the late 1970s, exemplify a new orientation in higher education. At the University of Juba the teaching/learning process is structured along interdisciplinary lines and features a combination of teaching, research and production. The University enjoys close links with the local community. Production is incorporated into the university experience in two ways. First of all, the practical nature of the teaching process (which is closely linked to production) requires students to spend at least one year in productive activities combined with research. Secondly, the entire university is involved in the production of marketable goods through its planned university farm. The latter aspect is particularly important in a poor country like the Sudan as it enables the university to attain a measure of financial self-sufficiency.

Cuban higher education emphasizes work-oriented training and students are encouraged to acquaint themselves with the production problems as well as developing themselves socially and culturally. A national system of research grouping the universities, the Academy of Sciences and other institutions tackles the various development problems of Cuban society. Attention is paid to increasing the capacity of the whole population to appreciate the results, needs and importance of research for development.

In Tanzania, emphasis on practical work is reflected in the Faculty of Engineering curriculum whereby students are required to familiarize themselves with basic machines used in production. As they advance to higher classes they are assigned projects related to actual problems met by industrial plants. The Institute of Production Innovation helps students and staff to blend theory with applications to help break the total reliance of the country on imported products. Consulting work by faculty is encouraged for the national goods.

Romania places heavy emphasis on education for development. The goal is to integrate the research and training of the schools and universities with production. In order to successfully blend theory with practice, teaching staff are obliged to gain work experience in production centres. The same practical experience is required

of students throughout the entire period of their studies. It is considered important to orient education towards the solution of concrete problems, and this necessitates continuous relations with enterprises and research institutes. The results of research done in the universities and institutes are incorporated into the teaching programmes of these institutions (Ibid, p.18).

Two further examples will be used; one from a developed and the other from a developing country, to illustrate the fact that it has not always been easy to get the traditional higher education sector to respond as desired. In France, where it has proved difficult to orient traditional universities towards applied research utilizable in production, a new type of technological institution was created to facilitate the relationship of education, research and production and make a contribution to the development of the region in which it is situated (Ibid, p.17). Similarly, in Mexico, research in universities remains divorced from production, although government sponsored research has increased in recent years and private enterprises are learning to use university facilities and personnel to further their research. In the technological institutions, however, a link has traditionally existed between the production sector and the institute, but it would seem that this close cooperation in research is not without its disadvantages. Frequently, staff in these institutes is too busy with research itself to carry over the research results into the curriculum (Ibid, p.13).

Implications of the Combination of Education, Research and Production for Institutions of Higher Learning and for the Production Sector

It may be useful at this stage to make explicit some of the changes which have been taking place in higher education institutions and in the Production Sector as a result of efforts to combine Education Research and Production. These include:

1. The necessity of specialists from industry, business and trade unions to participate in policy formulation to ensure the relevance of programmes of learning and research.

2. The adaptation of existing or traditional institutions to new requirements. So far, it seems to be easier to set up new institutions whose programmes and training methods are in phase from the start with local industries and communities, rather than transform existing institutions, even though some traditional schools, faculties and departments have made the necessary structural changes.

3. Reform of the teaching-learning process to include new kinds of "integrated activities" and to permit more flexible and diversified instructional methods. One of the consequences of the concept of combination of education, research and production seems to be the reduction of the number of lectures in favour of practical seminars, group discussions, field trips; more extensive use of individualized learning such as project work, Case Studies, research papers; the transformation of traditional laboratory work, when incorporating a research element from a means of verification and

illustration into a guided discovery means; more extensive use of educational technology and media; evaluation procedures which place more emphasis on the results produced by students in the course of their individualized studies and research work and productive activities.

4. Diversification of the teaching roles of university staff. Education now takes place not only in a lecture room or university laboratory but also in productive units and applied research laboratories. It is now necessary for University staff to be familiar with contemporary production processes and techniques in their fields and to share their teaching with non-teaching specialists from the production sector.

5. Students learning by new modes and processes as a consequence of participation in production work and research.

6. On the part of the production sector, successful combination of education, research and production necessitates a continuous and active involvement in various spheres of university life: policy formulation; planning, making and revising the programmes of learning; providing higher education institutions with facilities for practical training, productive and social activities and research and teaching.

The concern for a closer integration of studies with the world of work has resulted in recent years in the emergence of new types of institutions and programmes and in the establishment of new, closer, and more diversified relations between higher education institutions and the productive sector and the community. Acceptance of these new roles by higher education institutions have not been without some trauma. We will return later to some of the problems and difficulties.

The increased role of education, science and technology in contemporary production activities and in the life of society at large had drastically changed the old pattern of balance between education research and production. Science and technology, in particular, have become major factors of development, and production activities, in order to maintain a high level of efficiency must keep pace with their advance. The scientific and technological revolution currently affecting economic and social development in countries throughout the world calls for the sort of specialist who can apply his knowledge quickly and effectively, thereby contributing to the progress of science and technology, fostering production and prompting national development. (Ibid, p. 11).

As Professor Savov, Deputy Minister of Public Education, People's Republic of Bulgaria said in 1980 in the seminar convened by Unesco on the subject of combining education, research and production:

"The linking of higher education with scientific research and with production is ..... of particular significance at a time when the scientific and technological revolution has radically affected national economies everywhere. It is no accident that the training of specialists with higher education who can quickly apply their knowledge in practice, contribute to the development of production and help implement scientific and technological progress, has become a subject of general concern in many countries." (Unesco Report, 1981, p 5).

Somehow higher education institutions must aim at training future specialists to master fundamental knowledge in the given professional field, at the same time that they develop the knowledge and habits needed in production activities.

Distance Education at Post Graduate Level

In the foregoing pages, there has been some reference to distance education, especially as it relates to the issue of democratization at the undergraduate level. There has however been no reference so far to distance education at the postgraduate level. In view of the number of activities carried out by Unesco in this field and of their relevance to the issue of democratization and to the new roles of higher education in changing societies in the context of life-long education, some attention is now paid to this topic.

Distance education has a long history behind it. It has developed in different forms over the years in a number of countries as a result of a series of factors. These include the increased demand for higher education, its opening up to new groups and clientele and the rapid growth and obsolescence of knowledge. Various institutional patterns have been used, ranging from correspondence courses and part-time studies for adults to extramural extension activities in new types of institutions.

Distance education refers to study at all levels in which students are not given frequent face-to-face teaching or supervision by their tutors. Post graduate study refers to academic and professional study at advanced level for which a basic degree is a prerequisite. Distance education at post graduate level is of two main types, the 'widening' type i.e. for updating of knowledge, bringing new subject matter into focus and/or including entirely new subjects in the academic and professional competence of post-graduate students, and the "deepening" type which aims at highly specialized knowledge and often at research degrees. While the former has a long history, the same is not true of the latter.

While the potential of distance education for research degrees is far from established, distance education techniques have been sued for considerable success for post-graduate medical upgrading (France). In some countries industry, professional societies and universities are already collaborating in structuring appropriate courses. It appears that the need for distance education for updating knowledge at post-graduate level will increase in the coming years. For instance, it is clear that the exercise of certain

professions, nowadays, requires more than the specialized initial training given a number of years ago. Engineers, to take an example, are more and more often in need of knowledge in the fields of social sciences, economics, social legislation, psychology, environmental sciences and distance education might serve these purposes without severe dislocation in the work place. Among post graduate students there is a need for upgrading in original fields as well as in new fields of knowledge. Sometimes, such upgrading will need to be inter-disciplinary and problem oriented rather than disciplinary. (Unesco symposium on Distance Education, Madrid, 1980:4).

Whereas the concern with Distance education at the undergraduate level was with access to higher education as a second chance or in non-traditional forms to those who could not benefit from a normal academic career at the secondary or higher education level, that at the post-graduate level is somewhat different. The following quotation makes the point:

> "The need to be covered by Distance Education, in this particular case, arises from the general consideration that in the world of today, not to mention the world of tomorrow, no initial training, however high its standard may have been, can be considered as fully equipping the graduate for the whole of his or her professional life. Rapid changes in knowledge and technology, changes in society affecting the conditions of exercise of professions, new occupational profiles and economic fluctuations, also modifying to a considerable extent employment offers in the various professions in the various fields and at different levels of employment, the ever-increasing demand for more education, the growing trend on the part of employers to insist on higher levels of qualification, have emphasized the need for up-dating the knowledge of graduates. For many of them, because of occupational constraints, lack of time or physical location, Distance Education has a unique contribution to make for this purpose.
> (Unesco Symposium, 1980:4).

Distance education is delivered through varied institutional and organizational patterns. The following classifications were offered at the 1980 Symposium.

Classification by type of institution

(a) Complete distance studies (with what might be called an "industrial approach")	Open University (UK) Fernuniversitat (Federal Republic of Germany) Universidad National de Educacion a Distancia (Spain)
(b) Extension type of education (with the same tutor/student ratio as in traditional universities, but the tutors travelling to meet the students	in the USA, Canada: the "New England model" in Australia (also in developing countries)

(c) Specialized institutions which provide course materials and organizational guidance and carry out basic research on didactics and methods of distance study. Co-operating universities and partner institutions either provide their own subject matter or utilize proposed subject matter if it fits their syllabus.	DIFF (FRG) HERMODS (Sweden)
(d) Professional associations, which turn to universities and/or specialized institutions for expertise, but retain overall direction.	Medical upgrading in France.

(In respect to this last type of organizational pattern, it was pointed out that adult learners who left school some time ago and have attained a professional standing are often reluctant to become students again.)

Classification by method of organisation

Another classification was proposed, based mainly on US experience, which lists the advantages and disadvantages of the different methods:

(a) Distance education as part of an established institution

Advantage:	access to existing resources access to faculty
Disadvantage:	constraints on innovation distance education considered as second class activity

(b) Separate, freestanding new institutions for distance education (ex. Empire State College, among over a hundred in the USA).

Advantage:	less inhibited towards innovation
Disadvantage:	limited access to resources

(c) Consortial arrangements where institutions share tasks and resources

Advantage:	large student body; access to resources
Disadvantage:	organizational problems (e.g. copy-right, etc.)

(d) New, freestanding institutions for distance education but working with and through established institutions (this complex model is being planned for the American Open University. DIFF and Hermods are existing institutions).

Advantage: access to resources

(e) Institutions which only provide testing for self-learners, and award credits (e.g. Board of Regents External Degree).

(f) Corporations setting up their own educational programme (e.g. General Motors; the Rand Corporation, which has the authority to award Ph. D. degrees). Over US 10 million dollars per annum are allocated to these programmes.

(g) Media resource centres allowing access to distance teaching techniques by existing educational institutions.

With regard to co-operation between the distance education institutions and organizations not directly dedicated to education, there is the French experience, where a professional organization calls for the educational services of universities. In addition there is the Canadian Teleuniversité, Quebec, which co-operates with different organizations and bodies (the Co-operative Movement, the Institute of Bankers, a network of institutions in charge of care of elderly citizens), engaged in training and re-training programmes. This collaboration has led to a series of educational activities (media-based courses, tutorials, group training, etc.) which respond directly to professional and societal needs. It was pointed out that, for this approach, the distance education institution must be allowed a greater degree of administrative flexibility than is commonly found in traditional universities (e.g. continuous, open enrolment/admission/ no rigid temporal organization into terms or semesters, etc.) It was suggested that universities should generally apply this kind of administrative flexibility if they are to cater for students who are in employment. (Unesco Symposium, 1980:9).

In view of their direct relevance to questions which may be posed on certain aspects of distance education Sections 23-28 from the symposium's report are reproduced in their entirety:

23. "The question was posed whether distance education should develop as a system of its own or whether it could be fully integrated in the national educational system. Would there be a division of work or would there be competition?

The case of FRG was mentioned as a possible model:

(a) The Fernuniversitat (Hagen) abides by traditional rules of German universities, i.e. to do research and to teach (whereas in the USA a third function "service to the public" is added).

(b) The DIFF offers technological and material services for distance education, in co-operation with educational institutions and broadcasting stations. Its research results are published and disseminated to establish academic dialogue between DIFF and its partners.

(c) A third possible configuration is one in which a university undertakes distance education, but would have recourse to a specialized institution for technological services, undertaking of research, and production of materials.

The discussion showed that adjustments to the law may be necessary to handle educational innovations such as distance teaching systems.

24. The criteria (or guidelines) proposed for the setting up of a distance teaching organisation are:

- capability to organize a distance teaching system;
- non duplication of resources used by existing teaching activities (i.e. cost-effectiveness);
- distance learners have ready access to learning opportunities;
- capability to assess student needs;
- innovative approach.

It was generally agreed that traditional universities more often than not are ill-equipped to respond quickly to new educational needs. However, it has to be recognized that this situation varies considerably from country to country.

25 The difficulty of cost-benefit analysis was stressed, and claims to its application as the basis for decision-making in the establishment of distance education institutions were not generally accepted. There was general agreement, however, that distance education is (or can be) cheaper than the conventional university education.

26. The diversity of experiences in distance education reflected the different approaches in certification of post-graduate education. Canada, for example, has no distance education university which offers M.A. or doctorate level degrees. The Teleuniversité Quebec, provides updating of knowledge, off-syllabus. Certification within a distance education system was considered to require a much more flexible organization of examination (e.g. frequent open exam sessions, a unit-credit system, etc.) There was considerable doubt as to whether the post graduate learner who updates or widens knowledge actually wants a certificate, although he may want to be examined. The case may be different for those learners who participate in a distance education course in order to prepare for a career change.

27. There are specific cases where a certificate is required such as in engineering where the learner studies - at a distance - for a higher degree, or in teacher re-training, where a certain population of teachers are required to bring their qualifications up to an officially set level.

28. While it was agreed that the credit system can be a satisfactory form of education, it was also observed that some authorities in a number of countries do not accept the resulting qualifications. The absence of special regulations may lead, as at UNED, to the situation in which distance education students have to take the same examinations as students in conventional universities. On the other hand, autonomy in degree-giving, as at the Open University in the UK, means that the quality of the degree has to be established in public opinion before it is generally accepted as comparable with conventional qualifications." (Ibid, pp. 9-10)

On the question of which partners and agents should be involved in Distance education for the upgrading of knowledge of graduates, it seems desirable that academic institutions and research institutes co-operate with the productive sector in organizing courses for the upgrading of graduates and that Government authorities and professional associations should promote such activities and should be of course concerned with financing them.

In the Federal Republic of Germany Post-Graduate students in distance education usually pay a fee for printed material, but this fee may be paid back to students by their employers upon completion of courses. In Canada, the Teleuniversity receives government grants in accordance with the number of students enrolled. In France, a small fraction of the funds paid by companies for updating courses is utilized for distance education.

The present practice in many countries, for instance, Poland, is that industry cooperates with the Universities in the organization of periodic courses. Distance certificates and degrees are not recognized by professional associations in all cases (U.K.). To avoid such a situation, it seems desirable for steering committees involving participation by universities and professional associations to be set up to decide on standards and contents of updating courses as is done in some countries.

Any discussion of distance education needs to give consideration on how to sustain the motivation of students to avoid the high drop-out rate frequent in adult education programmes. The media have an important role to play in this connection, and a well designed distance teaching course must make appropriate use of various media in a cost-effective manner. Some media, such as printed texts, T.V. and radio, are good for the wide dissemination of teaching materials; media such as the telephone or face-to-face tutorials, are good for dealing with questions and discussions. Others, such as libraries, viewdata, computers or dial access are good for giving students access to information. For some kinds of courses, e.g. those involving conceptual development, printed texts may need the support of other media if they are to be fully effective. Depending on the intended educational objectives, printed texts may need to be differently structured. Though post-graduate students might need less face-to-face contact than undergraduates, for problem-solving subjects e.g. medical diagnosis or treatment, engineering etc. it is important to meet with, or at least talk by teleconference with expert professionals in the field. One challenge which remains is how to match the aims and objectives of

particular courses to the capabilities of different media. Research into this problem is urgently needed. A definite constraint upon the choice of media is, of course, the availability of sufficient funds.

Promising developments in distance teaching include the use of computers for information and data retrieval, the telephone connection of remote computer terminals to central computers for dealing with students' answers to multiple choice questions, the use of the T.V. set, plus a light pen, as an electronic blackboard for "audiographic" communication at a distance - possibly in combination with audio teleconferencing (as in CYCLOPS at the Open University, U.K.) and the transference by telephone or radio of whole short courses from a central computer store to local computers for local study.

The use of the telephone network in distance education now constitutes an important supporting element in most countries where extensive distance education systems have been built up. Applications of this particular medium includes

(a) Viewdata (i.e. linking computers to T.V. sets)

(b) Audio teleconferencing using either the public telephone system or private lines either for teaching sessions or for tutorials.

(c) Dial-access to tutorial audio tapes.

The funding of the education use of telephones varies. In some countries, low-cost calls have been negotiated with telephone companies. Call charges are, in some cases, paid by the universities, though in many cases running costs are covered by student fees, either charged directly to students (as in Federal Republic of Germany) or as part of a teleconferencing fee (Wisconsin U.S.A.) Teleconferencing because of its ability to bring students nationwide into conversational contact with an expert wherever he is located is likely to play a key part in professional updating in the future,

It is worth stressing, however, that the Madrid symposium agreed that despite the interesting potential of computers or of computerized tele or audio-conferencing, of video devises and other technological innovations, one should not forget inexpensive devices such as slides, radio and tapes, whose real learning potential for post-graduate students has not yet fully been exploited, while new media are already coming up to replace them. In fact, it seems that the extensive use of simple, modest, devices can still contribute greatly to many distance education courses. More information on the potential and optimal use of communication technologies (including advanced developments, computers, etc.) for distance education needs to be made available.

Assessment of students, whether for credit for self-evaluation poses one of the more difficult problems for distance education. It is expected that computers will in future play a larger part in evaluation activities, for instance, by using simulation techniques to discover a student's level of understanding.

Finally, as the Madrid symposium suggested, there is need for exchange of information and documentation on distance education for the upgrading of knowledge at post-graduate level, exchange of distance education material, both audiovisual and printed, and exchange of personnel to improve the quality of Distance teaching world wide. Although a vast amount of research has been done into various aspects of distance education, its methods, its media, its public etc., it must be emphasized that more research is needed with respect to distance education for the upgrading of knowledge at the post-graduate level. Not much is known about the post-graduate adult learner, his needs, motivation, reaction to media, learning habits, etc. More needs to be understood about assessment procedures, including the aims of assessment and the recognition or acceptance of its role and place in the learning process by the adult learner. The methods and the role of guidance and counselling for this particular type of education need further analysis. An analysis of cost data concerning certain aspects of distance education is also considered necessary, as is an enquiry into the real and potential impact of distance education on conventional education systems. Unesco has already made a significant contribution in some of these areas and various forms of inter-institutional and inter-organization collaboration and support from the international community are needed to assist distance education to achieve its obvious promise at the postgraduate level.

Distance education at the post graduate level is clearly a mechanism for making available to a greater number of working people without undue dislocation of their work, opportunities for life long and continuing education. Its development at this level has been made necessary by the rapid growth and obsolescence of knowledge, by the need, therefore, for more and more adults to be able to update knowledge acquired in their initial education or training in their own field of specialization; to acquaint themselves with new fields of knowledge which have been recently opened up by scientific advance; to supplement their training with training in related fields for more efficient exercise of their profession and to obtain degrees in different fields in the interest of professional or social mobility. In a world characterized by rapid innovations in technology affecting all sectors of the society, adults will require continuing updating of their knowledge and skills in order to maintain their jobs. (Ibid. p.4).

Reform of Curriculum and Instruction in Higher Education and the Pedagogical training of higher education personnel

The measures described so far in this chapter should have served to highlight some of the reforms of Curriculum and Instruction which have taken place in some aspects of Higher Education as a consequence of efforts to democratize it. Changing admission procedures led to the admission of new student clienteles: these and the emergence of new roles for higher education institutions have been among the factors leading to changes in programmes of study, teaching methods, concepts of teaching and learning resources and procedures for assessing both cognitive and effective learning. Efforts to link education and work, to combine education, research and production and to develop distance education systems have not been without their impact. This section sketches briefly some of the responses made in this regard.

Doubtless, the reforms alluded to were triggered off to some extent by the development of modern concepts of education. But it would be as well to recognize the criticism in the 1960s of the very high failure and drop-out rates among higher education students and of teaching methods in universities as among the forces for change. In the Australian case study, Goodman (1978: pp. 20-21) makes the point that as teacher training programmes improved the quality of teaching in primary and secondary schools, students in higher education began to make strong criticism of the poor quality of university teaching.

The traditional lecture pattern and laboratory periods of Canadian universities were also questioned during the 1960s "when the student body became more heterogenous and some of the teaching staff was inexperienced". (Monroe, 1973: 52). Tutorials, discussion groups, field work, internship and combinations of inter-disciplinary studies were introduced and these broke the rigidity of the old methodology. These practices were adopted in most of the Colleges and students were encouraged to participate in planning and evaluating their courses. A thorough study of university teaching practices was conducted by the University of Toronto in 1967 - one of its main concerns being the impact of modern technology on University teaching. Under pressure of modern concepts of education and with the aid of modern technology, even library services were transformed from repositories for books to learning centres or resource units with not only books and periodicals but also pictures, photographs, phonograph records, audio tapes, models, microfilm, artefacts and special exhibits (Ibid: 54).

With respect to innovations in educational technology, including computer assisted learning, Monroe made the point in the Canadian case study that the records of these experiments in programme development and the use of varied media was somewhat disappointing. He said,

> "As might be expected, progress has been most rapid in the new institutions, particularly in the colleges (CAATs and CEGEPs), when innovation was encouraged and supported by government action and where the public was often invited to participate in the planning and operation of the institution . There the new approaches to programs and methods came closer to the needs of the individual student then in the universities, where the forces of tradition were deeply entrenched."

However Monroe concluded that in the course of this evolution, educational leaders and the public were made aware of basic issues that could no longer be ignored. For one thing, Unesco's International Commission on the Development of Education had led to the recognition of two fundamental concepts: life long education and the education community. There was the growing recognition in Canada in the 1970s of the right of everyone to an education and of the glaring inequality in educational opportunity that prevailed. Official reports, both provincial and federal, recommended that education must be universal, continuing, individualized and, in the broadest sense, productive, while actual experiments, such as the Open University in

Great Britain and the University Without Walls in the United States, were spurs to action. (Ibid: 58).

That there has been fundamental reform in teaching and learning methods in universities but particularly in alternative structures in some countries (Canada, U.S.A., Australia, Venezuela, Hungary, the U.S.S.R., and other East European Socialist States, Arab States) has been well documented, especially in medical and engineering schools. That there has been thoroughgoing reform in curricula is also not in doubt. The initiatives taken in East European socialist countries are sketched as follows:

> 'The traditional concept of university curriculum is being revised at present by every socialist country. The need for revision has been brought about by social progress, the scientific and technological revolution, the exponential increase in the amount of new information ....'
>
> Because of the rapid development in sciences, university training cannot be expected to impart knowledge or lasting practical information applicable during a whole life span. As a result of this recognition, two distinct tendencies are already apparent in higher education. One is the aim to avoid specialization of too narrow a scope. There are considerable cutbacks everywhere in the specialized fields at universities and colleges, whose numbers virtually rocketed in the wake of pressing demands temporarily arising. Colleges and universities tend to regard professional education of a wider spectrum as their principal task during the ordinary duration of training. More intensive specialization, in both the theoretical and practical fields, is now relegated to post-graduate training following completion of undergraduate studies. The other tendency that follows logically from the first is to increase the importance and proportions of what are termed as fundamental and basic courses as against the whole content of training. Translated into practical terms this means that in technical education, for example, the ratio of mathematics, physics, chemistry, electronics and automatics, as well as that of the general technical subjects, is increased in accordance with the specialization concerned, while students of agriculture are taught physics, chemistry and biology more intensively.
>
> . . . . . .
>
> There is no doubt that up-to-date university training programmes, corresponding to the standards of scientific development, can only be drawn up provided the system of inflexible education, based on set subjects and prevailing even today, is altered by reforms. What may well be described as "subject structured training" is closely associated with the traditional set-up of the universities (made up of chairs and faculties separated from one another) and the system of sciences which are the products of historical development. It means that the subjects taught are, as a rule, identical with the corresponding disciplines each of

> which is represented by a chair. This traditional "subject structured" training loads the student with a considerable amount of surplus information that is absolutely unnecessary from the viewpoint of professional training, because the educators on the staff of the separate chairs all wish to convey the complete system of the disciplines they teach. In the absence of of appropriate co-ordination, there is too much overlapping in the material to be imparted within the framework of the individual subjects which is a sheer waste of time. Education based on the system of separate subjects is an obstacle to the recognition of contacts between the different specializations and logical correlations, hampering, in general, the development of the ability to think, finding the correlations between things, recognizing problems and assuming an interdisciplinary attitude. (Agoston et al, 1974: 50-51).

Reforms of this kind have their parallels in many countries; the resistance of too narrow and too early specialization; reform in the content of basic disciplines for engineering and medicine; the introduction of problem oriented and interdisciplinary studies; the improvement of the balance between theoretical and practical training; integration of subjects; have been among the curriculum reforms which have taken place practically world wide as part of the response of the higher education sector to new demands.

On what Unesco documents had to concentrate more is explicitly in reference to the response made by the University sector to the new and non-traditional students,,to mature students etc., the very populations who were expected to benefit from "access" to higher education. This is a pity because of its relevance to the question of completion of studies. "Making access real to previously excluded groups requires new thinking and invention in areas from structure to instruction, from counselling to curriculum". (Baskin, 1973: 49).

Mention has already been made of the Canadian universities' concern with their "heterogenous" student body. Goodman (1978) linked the considerable reform in teaching methods in Australian higher education during the period 1964-74 to the same themes.

"The diversification of courses, the wider range of students which has resulted from more open access to higher education and the variety and flexibility of instructional structures associated with full time, evening and external courses require more innovative approaches to teaching to meet individual student needs".

The most explicit statement was found in the American Case Study on Alternative University structures (Baskin, 1973: 5-6), in which the responses higher education was required to make were underlined as follows:

(1) Traditional students, who are "demanding a learning environment that is at once more flexible, socially positive and self-fulfilling."

(2) The heterogeneity of the new student populations in aptitudes, abilities, motivations and expectations and the increase in the numbers of adult students who need a more personalized curriculum.

(3) Students from minority and ethnic backgrounds who have paid a heavy price for past failures; poor students who are likely to display very different learning styles and interests from middle class students, who often have a great deal of difficulty adjusting to the prevailing climate, curriculum and modes of personal interaction on college campuses and are often unwilling to take the risk of trying to make it in such an atmosphere.

One characteristic and goal of most of the American experiments in alternative structures, in addition to serving new clienteles, has been the articulation of a client centred mission. In a wide variety of areas, alternative structures and other experiments saw students being attracted to their programmes in order to develop special skills and greater competence and understanding in a wide variety of areas, and they had therefore defined themselves chiefly as resource banks to help students fulfil their learning goals. In short, they were more responsive to different student needs as defined by students, and opened new routes through traditional curricular areas and establishing new areas as appropriate for study. They were also pursuing learning and teaching through various techniques and technologies and altering methods of student assessment (Baskin, 1973: 50-51). Baskin was acutely conscious that where higher education institutions took few steps to accommodate special needs and different cultural orientations they would communicate elitism and selectivity even if they advertised open admissions and inexpensive tuition rates. Hence his conclusion, "More than availability of access is needed for viable mass education". (Ibid. p. 6).

The foregoing trends underline the fact that, looked at from any interpretation of democratization, there needs to be more concern with the quality of teaching in the higher education sector than was accorded it by the traditional university. Research and scholarly activity obviously are important for upgrading teaching from the point of view of "up-to-date-ness" in a discipline, but this is not in itself a sufficient condition for the improvement of the university teacher's communication skills nor his ability to guide students into the complexities of his discipline. In fact, emphasis on research has often been associated with a de-emphasis on efforts to improve teaching. At the very least, the implication of such reforms as have taken place in the structure and the curriculum and instruction of higher education institutions is that <u>all</u> university teachers need to improve their knowledge and skills and competencies in the following areas:

(1) basic techniques of teaching and communication, including interpersonal communication;

(2) the characteristics of adult learners and techniques of teaching them;

(3) how to conduct tutorials, workshops and seminars and to work in open-ended problem solving situations;

(4) the ability to use a wide variety of media and to apply modern educational technology to their teaching;

(5) diagnostic and evaluation skills, suitable for interpreting students learning needs; for distinguishing between formal and real competence for higher education; for assessing theoretical knowledge, working experience and practical skills alike.

Some would even point to the developments in distance education and argue that at least some higher education personnel need curriculum development and programme evaluation skills - skills of developing modules, constructing study guide courses, media based courses and self instructional packages, and the ability to use the new technology, computers, micro processors, video texts, etc. Others, taking their cue from efforts to link education and work, and combine education, research and production would draw attention to the need for some higher education personnel to develop and use effectively case studies, simulations, problem solving interdisciplinary techniques, and inductive, guided discovery modes.

The further implication of all this is that teaching in higher education must be regarded as no less central than research and scholarly activity. It is undesirable for it to be left to teachers of lesser standing or to be taken seriously only in alternative structures or experimental situations. All teachers in higher education need to upgrade their knowledge and research skills in their specialization on a continuing basis. They need the sort of preparation which will assist in helping them to make a significant contribution to curriculum reform. Many more faculties need to follow the lead taken by many Schools of Medicine and Engineering.

The development of the concept of life long education has been the result of the democratization of education and of "massification" at the higher education levels and this has rightly led to concern that life long education must become a normal part of university life. In the words of the Report of the Committee on Making Life-Long Education a Normal Part of University Life, "all teachers should be trained for the new work involved in life long education, such training to cover both the technical and educational aspects". (Unesco Report, 1978: 9)

In this connection, it is reassuring to note some of the strides made in some countries (Czechoslovakia, Poland, United States) in respect of systematic training of higher education personnel both

in "psycho-pedagogy" and in the improvement of their knowledge and skills in their discipline. In Czechoslovakia, responsibility for upgrading staff rests with institutes of higher education; in the United States of America, with centres for faculty development within Universities and Colleges.

There has also been ample evidence of the development of In-Service and Continuing education programmes for upgrading university teaching in Israel, Holland, Switzerland, Romania, the U.S.S.R. and the U.K. (Report on In-Service and Continuous Training of Higher Education Personnel in Europe, (Unesco, 1980: 2-5). In the U.S.S.R. continuing in-service training of higher education personnel is organized in a centralized manner at governmental level. A comprehensive system has been established for the upgrading of university teachers and assistants and legal and administration provisions ensure social, pedagogical and professional (i.e. in the area of one's specialization) training. Continuing training is compulsory and re-appointment of teachers is contingent upon their participation over a five-year period, in one of the organized forms of upgrading. Even holders of "chairs" also pursue upgrading training by attending conferences and seminars of short duration.

Significantly, in the light of the earlier discussion, in-service training in the U.S.A. is called upon to provide solutions to new problems facing higher education, for example, the adjustment of the educational process to a new type of student clientele. The impact of centres for faculty development is particularly strong in the case of teaching-oriented Colleges and with the undergraduate programmes of research-oriented universities (Ibid, pp. 4-5). In the U.K. a Co-ordinating Committee for the training of university teachers services some 50 university institutions and its tasks are to keep the training needs under review, to assess additional needs, to promote staff development and to disseminate information.

All higher education institutions have a clear responsibility in the context of life-long education. Curriculum reform, the improvement of teaching and the continuous upgrading of higher education personnel are part of the process of discharging that responsibility. Pedagogical training and re-training should be regarded as an essential component in the development of university staff. Basic pedagogical training should be an essential prerequisite for providing continuous pedagogical training. Instructional improvement should be promoted through the reward system in Universities and Colleges. Departments/Institutes of pedagogy need to be backed by solid research, including research on teacher training in an interdisciplinary perspective. (Ibid, pp. 7-10).

Owing to its importance for economic development and cultural progress, the training of highly specialized manpower to meet the real needs of society will almost certainly make it obligatory for higher education institutions to become even more concerned with equipping their teachers to provide lifelong education.

International Recognition of Studies, Diplomas and Degrees

We will now deal with the matter of the international mobility of persons in higher education. This aspect of the democratization process is one which cuts across the access, output and life-chances dimensions of the democratization process. We may begin by noting that Unesco has worked untiringly to promote the international mobility of persons in higher education through the elaboration of a number of regional conventions on the recognition of studies, diplomas, degrees and other academic qualifications. Unesco's ultimate goal in the field of mobility of persons in higher education, especially with regard to the international recognition of studies, diplomas and degrees is the adoption of a universal convention, which has to be approved by the General Conference of Unesco.

The Historical Background

Persons in higher education (students, teachers, researchers, etc.) have always moved between countries. There were times when higher education systems withdrew behind national frontiers; this was especially the case in the 19th century. Even with such withdrawal, however, the traditionally authoritarian higher education systems never became wholly independent, and exchanges between products of the systems permitted a measure of flow of ideas and of mutual educational borrowing (World Guide to Higher Education, 1982: ix, x).

The agreements which have been concluded between countries in respect of freedom of movement in education and in other spheres have traditionally been bilateral in nature. Bilateral agreements containing clauses referring to the mutual recognition of diplomas and degrees started to appear from about the second half of the 19th century. However, numerous barriers - political, economic, socio-cultural - impeded freedom of movement between countries of persons in higher education.

Attitudes to the right of education (including higher education) and to freedom of movement between countries began to change appreciably after World War II. Major factors which have contributed to this change in attitude include theemergence of many new sovereign States, the foundation of new universities, the dramatic improvements in student enrolments, the "explosion" of knowledge and technology and the development of international exchanges in education (ibid:xi) All these factors have caused higher education to enter a state of effervescence, but have also brought to the fore in discussions in international fora the issue of the status of qualifications and their international comparability.

The problem of comparability is part of a larger problem of selection, and the selection problem is a very difficult one with which all societies strive to cope. It was probably considerations such as this which led Unesco to take the initiative in organizing a number of regional conferences on the international recognition of studies, diplomas and degrees. Six such conferences have been held. A convention on the recognition of studies and diplomas was adopted at each of these conferences. The Conventions in question

are as follows:- that for Latin America and the Caribbean, which was adopted at Mexico City on July 19, 1974; the Convention for the Arab and European States bordering on the Mediterranean, which was adopted at Nice on December 17, 1976; the Convention for the Arab States, which was adopted at Paris on December 22, 1978; The Convention for the states belonging to the European region, which was signed at Paris on December 21, 1979; the Convention for the African States, which was signed at Arusha on December 5, 1981. and the Convention for Asia and Pacific which was signed in Bangkok on December 16, 1983. The texts of the first four Conventions can be found in the World Guide to Higher Education (1982: Appendix 2). The text of the African Convention can be found in the Final Report (1982) on the Arusha Conference, and the text of Asia and Pacific Convention in the Final Report (1984) of the Bangkok Conference. Now we are in a position to deal directly with the matter in hand. We will focus on the orientation of the Conventions, and on the approaches which have been used at the national, regional and international levels with regard to the international comparability of studies and diplomas.

Orientation and Approaches

The Regional Conventions have a common format, in keeping with Unesco's ultimate goal of reaching a universal convention. They all contain a Preamble, in which the traditional ties between the countries of the given region are stressed, and in which there is a stated commitment to strengthening such ties. The Preamble is invariably followed by a section after which there is an affirmation of the objective of increasing mobility of persons within the region through the recognition by the authorities of studies, diplomas and degrees awarded within the region. Next comes an expressed commitment to the setting up of machinery for implementation, as well as to engaging in immediate undertakings. This is followed by a statement expressing a need for documentation and a commitment to co-operation with international organizations. The Conventions close with the procedure of their ratification, accession, and entry into force.

With regard to the approaches that have actually been used, an authoritative treatment of the problem of the handling of equivalence of degrees and evaluation of the competence of degree-holders can be found in Guiton (1977). Guiton's valuable study examines, among other things, present procedures and practices, as well as new avenues, with regard to the international recognition of diplomas and degrees. On the basis of his review of the related literature and of survey data collected by the Unesco secretariat in 1974 - 1975, Guiton has formulated a very useful typology of the lines of approach and the procedures which are being used by the authorities in the area of recognition of studies carried out abroad (ibid: 38-80). In making use of Guiton's typology, we need to bear in mind his pointed observation that

> .... the highly diverse motives which actuate all those concerned - from the applicants themselves to international bodies, as well as national and regional authorities - play their part and account for the complexity of present-day systems, although they do not justify it. (Ibid: 38).

The first type of approach may be described as centralized unilateral. This type of approach is found in highly centralized governmental and administrative structures. The authorities prepare lists of foreign qualifications which they consider to be equivalent to those awarded in their own countries. These lists are drawn up at regular intervals.

The advantage of the centralized unilateral approach is that it simplifies, at least in principle, both the procedure to be followed by the applicants and the work of the responsible authorities. This approach, however, is rarely applied in all its simplicity. Indeed, it is possible to discern an emerging trend toward decentralization of the previously highly centralized education systems and a shift in the powers of decision to institutions of higher education.

A second approach is what is referred to in the countries concerned as "nostrification". This term is one which means that a particular course of study or a particular university or scientific qualification obtained abroad, is considered by authorities in the host country to be equivalent to a specific course of study or qualification in the higher education system of the country concerned. "Nostrification" is a special measure which is taken by the competent authority. It is sometimes standardized for given types of qualification, thus allowing all the holders of that qualification to take advantage of the measure.

A third type of approach is the decentralized unilateral. This approach is found in countries where the recognition and validation of studies carried out [illegible] qualifications obtained abroad are dealt with by higher educational institutions and by interested professional organizations. The institutions of higher education deal exclusively with the academic implications, while the interested professional organizations or bodies get involved where the right or possibility of practising a profession in the host country is concerned. Each application is examined on its merits, and each institution thus established a sort of customary law.

A fourth approach comprises various kinds of bilateral agreements. These agreements have in common the fact that they are all founded upon notions of exchange and reciprocity, but they also happen to be highly diverse. Out of some 255 bilateral cultural agreements concluded between 1945 and 1972, the vast majority (more than 200) allow for mutual recognition particular courses of study, but contain clauses stipulating that "equivalences" will be the subject of committees or sub-committees to be set up under the arrangement. The reality is that when the bilateral cultural agreements are taken as a whole, the general clauses pertaining to recognition and equivalence

> ..... have often been treated as bilateral manifestations of an intention of cultural and intellectual co-operation and not as legal commitments that are capable of practical application. In most cases, little has been done to give effect to them
>
> (Guiton, 1977: 43)

Admittedly, there have been some bilateral agreements which purported to be more binding in respect of commitments to, say, access to higher education. The measures in question are general ones pertaining to equivalence, and are mutually applied to secondary-school leaving certificates and diplomas. However, the picture which emerges is a desperate one. Firstly, there is the situation of a very small number of countries with agreements based on natural links between relatively homogenous cultural areas - Brazil and Peru (1945), Belgium and France (1948), Chile and Panama (1948), Spain and Colombia (1953). Secondly, there is the situation of agreements based on geo-political affinities, as in the case of the 1971 agreement between Italy and Yugoslavia. Thirdly, there is the example of agreements based on transregional affinities, such as those between France and Brazil (1948), France and Chile (1955) and France and Colombia (1952).

In addition to the types of bilateral agreements mentioned above, mention may be made of those which allow for legal validation covering all the rights attaching to qualifications obtained in the two countries, and of those which relate to the practice of professions. In the former category fall, for instance, the twelve agreements on validation which were concluded by France with countries in West Africa and with Madagascar between 1960 and 1972. J. Guiton writes: "However, they have meaning and effect only insofar as the systems of studies remain identical in the countries involved, as the trend is for education to be adapted to national conditions and aspirations, such agreements are tending to become obsolete" (Ibid. 44). With regard to agreements pertaining to the practice of professions, it should be noted that "since the end of the nineteenth century agreements of this kind have become more restricted, and their field of application is now limited to the practice of certain liberal professions, for instance those of architect, lawyer, engineer, doctor or pharmacist" (ibid: 44).

A fifth approach is that which comprises a variety of multilateral agreements and arrangements. The six regional Conventions to which reference was made above may be subsumed under this category. In order to provide an immediate insight into the multilateral approaches we may cite the following observation by Guiton (ibid: 45):-

> First, there are (multilateral) agreements and arrangements worked out and applied by the various institutions of higher education or by the universities alone, within groups which possess and maintain a common heritage of educational traditions and practices. These semi-official arrangements are particularly likely to last. Being flexible, based on long experience and adaptable to circumstances, they permit of considerable mobility at the various stages of higher and post-graduate studies and from one institution or country to another, even though educational systems, institutions and their courses of study may themselves evolve and become diversified. The most typical example of such arrangements is that of the Commonwealth universities.

> The principle (sic) means employed, however, is that of multilateral conventions. The extent to which they are legally binding varies according to whether they are entered into by inter-university bodies or adopted and ratified by governments; in both cases, however, they concern groups of countries each one of which already forms or is likely to form a cultural, economic and political community. A distinction should be made between purely academic conventions and those relating to the practice of professions, although it should be pointed out that both have the same basis - the choice and use of common standards and criteria for the evaluation of knowledge acquired and of skills and abilities.

In the Arab States, as in Latin America, regional agreements and arrangements on the recognition of studies and diplomas have been established for cultural, linguistic and political reasons. In Africa, a trend towards co-operation has been emerging in groups of countries which have a common language as well as educational systems which are similar in conception.

CHAPTER III

ACHIEVEMENTS AND OBSTACLES

The organizational, structural, financial and other measures in the preceding Chapters have stemmed from differing interpretations of democratization in different national contexts. These differing interpretations have been indissolubly linked with different national traditions. We did not provide a comprehensive description of the higher education system of individual countries, but enough information was provided to underline the point made by Spaulding and Kargodorian (1981: 90-91) that even within countries different higher-education institutions have had different conceptions of "equality", "education", and "opportunity".

VALUE-JUDGEMENTS ON EQUALITY OF EDUCATIONAL OPPORTUNITY

"Conservatives", "liberals", and "radicals" have disagreed less on how democratization ought to be interpreted in the abstract than on what the term is to mean in practice. The disagreement over the application of concept is more often than not disagreement over the value-judgements required for the application of the Concept, as Ennis (1976: 4-6) has observed (cited in ibid: 19-20). Spaulding and Kargodorian have in fact provided, on the basis of their review of the literature on equality of educational opportunity, a very enlightening summary of the essential assumptions of the conservative, liberal and radical schools of thought on equality of educational opportunity. That summary, which is essentially one dealing with how each school of thought views the role of the educational system, and with the criteria used by each school of thought for assessing equality of educational opportunity, is reproduced in Table II.

The Conservative school of thought stresses the differential distribution of educational opportunities on the basis of differences in intelligence, and assumes intelligence to be genetically determined; the Radical school of thought stresses the removal of class-based inequalities in the distribution of educational opportunities and assumes intelligence to be a cultural phenomenon; the Liberal school of thought, which is somewhere in the middle of the continum, stresses equality at the start of the "race", and assumes intelligence to be determined by both genetic and environmental factors. It is clear from the discussion in Chapter I, however, that regardless of the fundamental assumptions which characterized the three schools of thought, no country today adheres to an interpretation of equality of educational opportunity which may be termed purely elitist. Indeed, this is precisely the point made by Kerr (1979, cited in ibid: 95-96), who has observed that in practice aristocratic and/or meritocratic notions of equality of opportunity in higher education have become outmoded, and that while some countries have "atomistic" higher education programmes none has as yet achieved horizontal education. Atomistic higher education programmes are ones which include, among other things, short courses, non-formal and extension schemes, and life-long education programmes for adults

TABLE II

EQUALITY OF EDUCATIONAL OPPORTUNITY: SCHOOLS OF THOUGHT AND THEIR IMPLICATIONS

School of thought/Interpretation of Equality of Educational Opportunity	Essential Assumptions	Role of Educational System	Criteria for Assessing Equality
Conservative/Ultra-Conservative	- God bestow aptitude on individual. - Concerns of social class not a function of education. - Intelligence is innate, can be predicted at puberty, and can be measured by psychometric testing.	- Equality at juncture of primary and high school. - High school serves as filtering device using exams and tracking. - Access to higher education reserved for those with high academic ability as measured by attitude aptitude and achievement tests. - Through educational Darwinism, the "able" enter elite occupations.	- Quality of entering students as defined by psychometric testing. - Genetic explanation of failure to gain access.
Liberal/Reformist	- Individual has relatively constant intelligence, but it is influenced to some degree by socio-economic environment; it can be measured by objective tests which take into account the influence of environment. - Can determine individual's potential, but cumulatively, over long period of time. - Academic merit.	- Equality at start/entrance- - Educational system to remove external barriers. - Compensatory education. - Curricular differentiation. - High school (and in some countries, primary school) serves as a filtering device.	- Persisters. - Emphasis on access. - Structural reform and professional explanations of failure (curriculum, methods, etc.).

TABLE II (CONTD:)

School of Thought/Interpretation of Equality of Educational Opportunity	Essential Assumptions	Role of Educational System	Criteria for Assessing Equality
Radical/Ultra-Radical	- Educational system reproduces structure of society, traditionally serves as sorting and certifying agency. - Intelligence is a cultural phenomenon, is influenced by private public environments, and cannot be measured, at least by traditional psychometric approaches. - Ability should not be a barrier to access. - Maximum development, of individual according to his needs.	- Equality at end/entry in society. - High School should not be a filtering device; special help should be provided disadvantaged groups.	- Degree which educational system provides for the needs of all. - Emphasis of effects on life chances. - Welfare capitalism/socialist explanations of failure of present equal opportunity.

SOURCE: Spaulding and Kargodorian, 1981: 17-18)

and all ages. Horizontal higher education programmes are those which would eliminate the vertical effect of higher education on social stratification.

MAJOR ACHIEVEMENTS

It is important to recognize that as far as the democratization of higher education is concerned, the greatest achievement has been the making of more education available to more people. It is true that most countries have universities which are still geared to the traditional population group of young full-time students (Werdelin, 1981:26). Nevertheless, in the industrialized countries in particular - where the process of expansion commenced earlier than in the developing countries - the expansion of university education has been accompanied by major changes in its character, even in the old universities. This is one of the major points to which Goldschmidt (1977) drew attention in the working document which he prepared for a symposium on higher education which was organized by the European Centre for Higher Education (CEPES) in Bucharest in September, 1976. In this connection, Goldschmidt said:-

> The great variety of students' social background, previous schooling, job experience, age and study goals (degree and non-degree courses) and the need for new services such as recurrent career education (continuing education in the USSR) require an increase in revised and freshly conceived study programmes, as well as the reform of teaching methods, including the application of modern technology wherever appropriate. The large student numbers necessitate the school-like rationalization of teaching even in the old universities. At the same time, such processes enable the development of new forms of education for persons already gainfully employed and other part-time students...."
>
> (Ibid: 35-36)

Goldschmidt was pointing simultaneously to the progress which has been made in the industrialized countries in extending higher education opportunities to non-traditional groups, and to the need for even greater reform if these groups are to derive even greater benefits from higher education. We will return to this matter of the need for even greater reform in Chapter IV. At this juncture, however, it is necessary to make an important observation on the quantitative expansion which has taken place in higher education. That observation is that even though the industrialized countries have made the transition from quantitative expansion to qualitative reform, they still seem to be primarily concerned with "access" or "who gets in" aspects of democratization, whereas the developing countries have over the past two decades been primarily concerned with the expansion of a more or less traditional higher education to encompass more students (Spaulding and Kargodorian, 1981:90-91).

The observation which was made in the preceding sentence helps us to understand why, in Chapter I, the discussion tended to centre

around the measures which have been utilized in the industrialized countries. It should not be inferred from this, however, that the higher education systems of developing countries are so traditional as to merit only minimal comment. Indeed, the growth of educated unemployment in the developing countries has caused the policy-makers in many of these countries to start focussing their attention on the relationship between higher education and the job-market. It is increasingly being recognized in the developing countries (and in the industrialized countries as well) that neo-classical wage-competition assumptions about how the labour market operates must be complemented or supplemented by job-competition assumptions. While increased attention is being paid in the developing countries to the need to create more jobs, tentative steps have been taken in these countries to diversify and equalize opportunities for higher education. We share with Spaulding and Kargodorian the optimistic view that the decade of the eighties should see many of the developing countries moving toward greater emphasis on qualitative reform in higher education (ibid: 91).

Broadly speaking, then, the achievements in the application of the concept of democratization may be placed in the five categories identified by Spaulding and Kargodorian. These categories are as follows:

(1) the expansion of new facilities to admit larger numbers of students;

(2) reforms in admissions policies to give priority to previously disadvantaged students and/or to link education more directly to economic and social goals;

(3) the physical and/or temporal divorce of teaching and learning to allow students access whether or not they can attend full-time or whether or not they can reside on or near a traditional campus;

(4) changes in the curriculum and the introduction of non-traditional degree and formal/non-formal courses to provide higher education opportunity more relevant to new population groups than the elitist content and methods of the past; and

(5) structural changes, sometimes leading to comprehensive reform and entirely new concepts of the role and function of higher education in society (ibid.:90)

These changes, it should be noted, have not stemmed from the same considerations in the capitalist as in the socialist countries. They have been, in the capitalist countries, essentially a response by the political directorate to an increased social demand for higher education; while they have been planned in advance in the socialist countries essentially according to manpower projections.

OBSTACLES ENCOUNTERED

The major concern of this chapter is the obstacles in the application of the concept of democratization. It is to this very important matter that attention will now be turned. It should be made crystally clear that in this respect we are less interested in getting entangled in the tentacles of an ideological octopus, than in examining whether the various schemes which have been implemented have achieved what they have been designed to achieve. Having said this, we can say that numerous difficulties and obstacles have helped to make the democratization of higher education a relatively slow process. These difficulties and obstacles have included factors internal and external to the students themselves, such as, laws and regulations, agreements, societal attitudes and values, the resources available, the knowledge, skills, abilities of the group involved, and the attitudes and motivations of the group involved. These factors have all been dealt with by Werdelin in his analytical framework for examining obstacles and difficulties encountered by workers in gaining access to higher education. We are, of course, concerned not only with access problems, but also with problems related to the successful completion of higher studies. But since Werdelin's analytical framework is so relevant to the topic under discussion, it will be uuseful to summarize that framework (See Werdelin, 1981: 24-25).

Frames of Resources and Preparedness

Werdelin uses the term frames to refer to factors which hinder or put a limit to an action, and considers feasibility - that is, what is really suitable under the existing circumstances - as the opposite of frames. He makes a distinction between external and internal frames, and between frames of resources and frames of preparedness, as follows (ibid.:24):

> "The external ones are imposed from outside, by the greater society and the environment. Here belong laws and regulations, values and attitudes in society, availability of different types of resources, etc... Internal frames are those which are found within the individual or group whose actions are studied. AMong them belong the individuals'or the group's intellectual capacities and knowledge, attitudes and opinions, volition and character traits. A distinction is also made between frames of resources and those of preparedness. Resources include not only funds, but also manpower, materials, etc., as well as the knowledge, skills, intelligence, etc., found in the individuals or groups. Preparedness includes laws, regulations, values, attitudes, opinions. etc., which can be isolated in the greater society or the surrounding, or in the individual or the group."
>
> (Emphasis in the original)

After making his distinctions, Werdelin suggested the following four groups of frames: external preparedness (laws and regulations, agreements, societal attitudes and values, etc affecting the group

studied); external resources (difficulties and obstacles related to money and expertise provided, time constraints, etc.), internal resources (knowledge, skills, abilities, etc. in the group studied); internal preparedness (attitudes, values, opinions, information, etc. found in the group studied. The four fields are illustrated in Figure I with special reference to access of workers to higher education institutions.

It is clear that while Werdelin's analytical scheme is designed primarily to deal with problems of access, that scheme is also useful in analysing problems related to the completion of higher studies. Resources and preparedness do not cease to be important factors once workers and other non-traditional groups have gained access to a given institution of higher education. As we proceed with our analysis, however, it will be necessary to remain alert to the need of expanding or modifying Werdelin's typology to suit the purpose of this Chapter, as additional difficulties and obstacles are uncovered:

FIGURE I

THE CONCEPT OF FRAMES

External

EDUCATIONAL LEAVE AND EDUCATIONAL FINANCE	ACCESS TO HIGHER EDUCATION INSTITUTIONS
Resources	Preparedness
BACKGROUND OF WORKING STUDENTS	MOTIVATIONS AND ATTITUDES

Internal

SOURCE: Werdelin, 1981:25

The problem of Resources

We have seen that while opportunities for university education have increased over the past two decades, there has been an impressive growth of non-university higher education institutions. It is in the latter institutions that the non-traditional groups which have gained access to higher education are mainly to be found. The charge of "second-rateness" has frequently been levelled against these alternative higher education institutions, and the indications are that in the foreseeable future the number of these institutions will increase at a faster rate than that of the universities. Most of the new alternative higher education institutions also appear to have a heavy vocational and/or technical bias. These alternative structures in higher education have generally failed to achieve their planned objectives, partly because of resource-based difficulties and obstacles.

Let us elaborate on this problem of resources by referring to a region which has hardly been mentioned in this study up to this point, namely the Arab region. In this regard, the information which we will be providing is taken from the relevant Unesco-sponsored study, that by Soliman (1976). In the Arab States, an effort is being made to exploit to the fullest that region's natural resources. Applied science and technology have become matters of prime importance in this connection. Accordingly, the new higher education institutions have placed a heavy emphasis on applied science and technology, and also differ from the traditional (classical) institutions in their management, organization and administration. These new institutions may be placed in three main categories for the region as a whole, namely, the intermediate and training institutions, the higher technical and technological institutes, and the university-level institutes or faculties of engineering. There have emerged "instant training centres" attached to industrial establishments, such as the Kima Company Institute of Egypt, and teacher training institutes in Syria and Saudi Arabia. The intermediate institutes offer two years of study after secondary school, as in Egypt, Kuwait and Saudi Arabia.

Soliman has appropriately observed that the problems encountered in the science programmes in the technical institutes in the Arab region are not different from those encountered in other regions, and had this specifically to say about the experience of the Arab States (ibid.:27):-

> "... Staff training is sometimes inadequate. Practical and laboratory instructions are not sufficient. There is an almost complete dependence by students on lectures for obtaining information. They are unable to make adequate use of the library, auxiliary reading materials, collateral text books, periodical literature, etc. This might in part be attributed to weakness of students in foreign languages. Learning by memorization is a serious problem in many cases. Students may also lack the ability to read quickly and to comprehend clearly what they have read. Curricula are often not relevant to local conditions, and therefore should be adapted. Mass higher education which is demanded in terms of the democratization of higher education and opportunity, is hard to resist. Finally, science study is unattractive to talented students: medicine and engineering are more popular....."
>
> (Emphasis in original)

Evidently, the obstacles to democratization in the case of the science programmes in the technical institutes are not exclusively confined to the money dimension of the external resources frame. The preceding excerpts points to such additionally important resource problems as those of expertise, and the limited knowledge, skills and abilities of the students. In pointing to the limited internal resources of the students, care must be taken, however, not to "blame the victim". The unattractiveness of science study to talented students is something which requires no additional documentation in the case of developing countries. Although technical education is

allegedly necessary for economic development, the fact of the matter is that in most countries technical education attracts few able students partly because it is terminal (Werdelin, 1981:41). The completion of such education does not normally lead to further training for better jobs.

We have not dealt explicitly, thus far, with the problem of a shortage of funds. We deal with this problem by referring to what has happened in three countries which are in different parts of the world. In Jordan, the University of Jordan was created during the 1960's as an independent state university. This institution is unique among Arab universities in that while it is a state university, like all other Arab universities, it runs its own affairs and does not refer to any authority outside its own campus. As Samra (1977: 41-42) has pointed out, the University of Jordan stresses quality rather than quantity through:

(a) keeping the student-teacher ratio as low as possible;

(b) replacing the annual system of education with the credit-hour system;

(c) remaining open from early in the morning till late in the evening;

(d) orienting teaching, training and research mainly towards the problems of Jordan;

(e) making provision for "auditor students" so as to extend courses to as many people as possible; and

(f) providing special programmes for those wishing to upgrade previously acquired skills.

The University of Jordan recently introduced development-oriented programmes in Agriculture, Medical Sciences, Marine Science, and Population Studies, but has been having difficulty raising sufficient funds to expedite the implementation of these programmes:

> "Without the financial assistance of Unesco, for example, the University of Jordan would not have been able to carry out the graduate programme at the Faculty of Science. This financial assistance is still badly needed for both the continuation of this graduate programme, and for the successful application of programmes in other fields."
>
> (Ibid.:45)

The second case is that of Venezuela. In Venezuela the total enrolment in higher education rose dramatically from 50,376 in 1966 to 254,979 in 1976, with enrolment in the universities increasing from 47,099 to 197,529, and that in the other institutes increasing from 3,277 to 57,450. But according to Armengol (1977:15) there has also been a surprisingly high increase in the budget for the

financing of higher education, with operational costs being an estimated 7,875 bolivares per student. Venezuela has attempted to solve this problem of costs by creating a National Open University. Armengol has stated that there are grounds for anticipating a considerable reduction in annual costs per student and in social costs per graduate provided that;

> "(a) an appropriate size is rapidly attained, permitting economies of scale; (b) courses are designed which can be used by large groups of students; and (c) there is a modern, flexible, and highly efficient organizational model."
>
> (Ibid.:23)

Time will tell whether the National Open University will prove to be cost-effective, for the ministerial resolution for the creation of the Organizing Commission for the NOP was only passed in 1976.

The experience of the U.K. suggests that Open Universities can help to reduce the cost of higher education. U.K.s Open University has unit costs which are considerably lower than those in the other British universities, and is highly cost-effective when compared with the other institutions of the alternative university sector (Adamson, 1978: 90-92). But while the Open University has been a "great success" in attracting teachers, housewives and other female students, it is under "substantial conditions of financial stringency considering its potential" (ibid.: 85).

The large Polytechnics in the U.K. have also placed strains on the budget for higher education at the same time that they have tended to function more and more like traditional universities. The large Polytechnics are increasingly tending to discontinue the Higher National Diploma (HND) courses in favour of degree courses as offered in the universities, while the smaller colleges of the alternative sector are anxious to obtain this HND work. However, the society has devalued the HND. (We may note in passing that this societal devaluing of the HND falls in Werdelin's "external preparedness" category). The problem is that while the alternative system has tacitly been intended to be used as a more economic way of meeting societal pressures for more and more higher education, this has proved to be an illusion (ibid.: 41, 45). According to Adamson, while it was expected that by the year 1981 more than 50% of the total number of full-time students in the U.K. would have been in the Polytechnics and in the Open University, expenditure on the Polytechnics has been growing at a much faster rate than expenditure on the university sector (ibid.: 90, 98).

The relationship between money and power is not a perfect one, but these two phenomena are inextricably interwined. We mention this because the typology provided by Werdelin only deals indirectly or implicitly with the question of power, and the question of power must be given explicit attention when one is dealing with the distribution of resources. If we return to the British case, we observe in the following excerpt from Adamson that the Polytechnics have actually helped to perpetuate the economic inequalities already in

existence, at a time when economic stringency has become the norm:-

> "Naturally, since all local authorities have been limited recently in their income, this has led to the criticism of the pooling arrangements; as obligatory contributions of local authorities have increased, corresponding reductions have had to be made in other services. It has been suggested by spokesmen of certain local governments, that others with higher education institutions are developing them in irresponsible ways since they do not have to find the money; it may be noted that this is the doctrinal criticism offered by many spokesmen from the alternative (FE) system about the universities! It also follows that since all 'advanced' courses, whether they are being studied by full- or part-time students, are poolable, the inhabitants of the areas in which the institutions are located directly benefit, since courses for inhabitants studying part-time are paid from the pool. Furthermore, Polytechnics can be economic assets to an area, enabling long-term economic benefits to be gained without investing too much local money because of the financing by other local authorities. Because of the geographical location of Polytechnics and the location of industry, there is evidence that the North of England, for example, is supplementing the South, and thereby perpetuating economic inequalities already in existence. The continued existence of the 'pool' in its present form is thus questionable."
>
> (Ibid.:98)

When one focusses on adults who are already employed, one observes that not enough countries have taken the steps necessary to have this group benefit sufficiently from opportunities for higher education. Workers are hardly in a position to benefit from extended opportunities for higher education unless they are given study leave. They also have to solve the financial problems of replacing the salary lost during their leave, and of paying various fees, including tuition fees. Most countries provide certain groups of workers, particularly teachers and civil servants, with study leave, usually with full pay, and generally such leave is either guaranteed in laws or agreements (Werdelin, 1981:52). As we have seen, however, this has been somewhat less than what is required.

Time, of course, is an important resource factor. It is something of which part-time students who are already employed do not have an unlimited supply. The following lengthy excerpt from a case study on Australia applies generally to the vast majority of countries which have higher education institutions catering to part-time students:-

> "By far, the largest number of part-time students in higher education in Australia attend evening classes studying after the completion of the day's work.... An adult working student may be committed to attending an educational institution perhaps three nights a week. Educational institutions in Australia do not as a rule operate for teaching purposes on

Saturdays or Sundays, although the libraries may be open at certain hours.

After work, therefore, the evening part-time student makes his way by car or public transport to the centre of learning. As evening lectures frequently begin at 5:00 p.m. there is not time to return home or to obtain a meal... The cafeteria offers minimum services and all the amenities and facilities available to the full-time student are either closed down or operating at a reduced level.

After lectures are completed, he may wish to borrow a book from the library but invariably the book he seeks is in use or has been borrowed by a day student.... To the demands of his occupation, his studies and his family life may be added his community and social activities....

How much time should he devote to study, and where will he find the time without sacrificing too much of his other interests? He may be too tired to take up study again on return from lectures. How can he plan the other evenings and the weekends? Time is ever the enemy. A part-time student is often advised to spend up to ten hours of extra study time a week for each unit of his course, even when examinations and assignemnts are due. It is clear that the evening student has many more difficulties than his day-time colleague in studying, quite apart from the difficulties inherent in the course itself.

The frustrations are so great it is no wonder the drop-out rate for evening students is so high."

(Goodman, 1976:15)

There is no evidence that adult working students are intellectually less able than young full-time students. Indeed, the experience of Scandinavian countries such as Sweden and Norway seems to indicate that while dropping out is a common problem, mature students admitted without formal secondary-school qualifications perform as well as other students (Werdelin, 1981:38). As long as the present international economic recession continues, it is more than likely that the number of part-time students in higher education will continue to grow, with all of the attendant hardships just noted.

The Social Background Factor

Social background factors have combined with resource-based obstacles to help retard the democratization process. Most of the studies commissioned by Unesco have raised this issue indirectly, but few of them have explicitly given to it the thorough and systematic attention which it deserves. The over-representation of certain social classes or ethnic groups is given some attention in the case studies on Eastern Europe. It is, however, the study by Werdelin which has come closest to giving the problem of social background the attention which it deserves. The information which

follows draws on the study by Werdelin (1981: 14, 38, 55-60) and deals with the effects of the students' socio-economic and family background.

University students continue to be recruited mostly from the upper strata of the population, even in Sweden which has gone further than most countries in its educational reform. The data in the following Table indicate that notwithstanding Sweden's open-door policy, students with manual backgrounds are still under-represented. The fact that the "25.4" students show slightly higher proportions of farmers' and workers' children than the traditional groups should not be allowed to divert attention from this. Indeed, "social-class is an equally strong factor in determining who shall enrol in higher education in Sweden, independently of whether the student is young or mature" (Werdelin, 1981: 59).

TABLE III: New Students Admitted by the 25.4 Rule Compared to New Students with Normal Qualifications and with the Total Swedish Population by Social Backgrounds, Sweden (percentages).

Social Background (Father's Occupation)	25.4 students 1969-1976	Normal students 1969-76	Population Born 1948
Farmers	13	7	14
University Graduates	5	16	3
Directors, tradesmen	18	16	11
Senior White-collar workers, officers, teachers	17	25	11
Other White-collar workers	13	14	10
Manual workers	34	22	51

SOURCE: Abrahamson et al, 1979:55, cited in Werdelin, 1981:38.

Werdelin has stressed that while the data he has consulted are mainly from American or Swedish courses, all the data point in the following direction:-

> .... the better the adult's situation, the better his chances for taking part in adult education activities. Those who are most likely to enrol in such activities are intelligent, fairly well-educated people, particularly those with vocational training. They are usually skilled workers, and they come from families with positive attitudes towards schooling. Such people are very favoured from the beginning, and their education is likely to lead to their getting further advantages over others.

> The situation is evidently such that further adult education provided increases the differences already existing in society. This works against the demands for social justice and equality of educational opportunities existing in many societies ... As other education, adult education becomes part of a system, where it is extremely difficult to climb on to the ladder, but where those who are on it find it increasingly simple to climb higher and higher up...
>
> (Ibid.:60)

Difficulties and Obstacles in the Organization of Course work

We will now shift our attention to difficulties and obstacles in the democratization of course work, and will focus on study-service schemes. The information available about study-service schemes in the Philippines, Indonesia, Thailand and other countries, reveal, in the words of Unesco's Director-General, "generally positive and favourable response from the students, parents, faculty members, administrators, host community, professionals and the general public" (Analytical Report, 1979:11). The Director-General has taken care, however, to point out that:

> .... the implementation of such schemes still needs to improve and to overcome a number of problems.
>
> It requires more systematic and controlled research on the impact of study-service, particularly on curriculum and institutional development, and on ways of raising living standards in the communities concerned.
>
> (Ibid.: 11-12)

Study-service schemes hold out the promise of being an effective means of bringing about the transformation of higher education. The students generally seem to enjoy the experience of being away from home and of working with colleagues in new surroundings, but there are some who, because of poor assignments, feel alienated and strangers to the "service" aspect of the programmes. The experience which has been gained from these schemes strongly suggests that no national study-service scheme can be successfully implemented unless at least four major obstacles are overcome. These four obstacles are: opposition from faculty members, students and the parents of students; fears about funding; inflated allowances demanded by students; and retention of control of assignments (Fussell and Quarmby, 1977: 15-17).

Opposition to the introduction of study-service schemes can be expected from faculty members - particularly senior ones, since such persons tend to see study-service schemes as a threat both to their own status and to the academic value of the courses of study for which they are responsible. In Ethiopia, Nigeria and Kenya, there was considerable initial opposition from students and parents. Those groups saw study-service as (a) a potential extension of the already long period spent in the education system and a delay in beginning

paid employment, and (b) a dangerous undertaking since the students had to travel to remote areas or live in villages. The experience of Indonesia, on the other hand, suggests that the opposition from students and parents, and some of the opposition from faculty members, can be reduced if carefully designed voluntary pilot projects are used to pave the way for the slow and careful introduction of study-service schemes.

Funding is - as we have seen - a critically important obstacle to the democratization of higher education. It appears that in study-service schemes, this obstacle may be partially overcome if the costs of study-service schemes are considered not merely in terms of an addition to the education budget, but also in terms of supplying manpower and of helping to bring about strongly desired change in educational systems. The secret, as Fussell and Quarmby have pointed out, "is to design a form of study-service that clearly demonstrates that it can provide real and practical benefits" (ibid.:16).

In at least one case - Nigeria - the opposition of students to study-service included demands that allowances be raised, "thereby indicating that these objections had a price" (ibid.:17). Experience has shown that the provision of students with very high allowances can lead to inflated budgets and to a reduction in the cost-effectiveness of the study-service schemes. Part of the solution to this problem may involve holding allowances at the same level and allowing inflation in living costs gradually to remove the excess.

The experience of the Ethiopian University Service suggests that there are problems which result either from the decision to assign students to fill existing conventional employment vacancies, or from the decision to ask employers to assume direct responsibility for the payment of the students' living expenses. Such decisions enabled the EUS to have only a comparatively small budget control over the nature and quality of the assignments. Non-EUS personnel eventually squeezed out both the EUs participants and the EUS. In contrast, there are cases, such as that of the KKN in Indonesia, where the institutions have retained firm control over their budgets and over the nature and quality of the participants' assignments.

Dickson (1980:7) has advised governments which want to deal with large numbers in study-service schemes that they do not necessarily have to embark on a monolithic, centrally-controlled programme, and that initiatives can be entrusted to separate universities or to individual faculties within colleges, as with India's National Service Scheme and America's University Year of Action. Dickson has been much more cautious than Fussell and Quarmby in his views on the implementation of study-service schemes. Witness the following:-

> Study service programmes cannot be implemented painlessly - either in the Pacific or in other places. It is a naive assumption that a study-service scheme can be introduced through a side door, or stuck on as an additional appendage to some existing community services office concerned primarily with student

> accommodation, transport and similar semi-social amenities. It means the University asking itself fundamental questions as to its purpose. It cannot be introduced without dislocation when physically it entails the geographical dispersal of students (i.e. dislocation in its most literal sense) and a revision of curricula, if not an actual extension of the total duration of a student's course by as long as a year.
>
> University heads - presidents, rectors or vice-chancellors - are appointed on account of their scholastic distinction or administrative flair. The politics they are involved in are the politics of the campus, the strategy of fund-raising or the chairmanship of governmentally appointed commissions. They do not court clashes with academic colleagues, still less confrontation with students ....
>
> (Ibid.:15-16)

In sum, then, there are serious obstacles to the effective implementation of study-service schemes, as is amply demonstrated from the experience of countries which have established such schemes. Since most of these schemes are relatively recent, care must be taken to avoid being excessively optimistic about their democratizing effects until many more systmatic evaluation studies have been conducted.

OTHER DIFFICULTIES AND OBSTACLES

Difficulties and Problems involved in Achieving the Combination of Education Research and Production

That a measure like the combining of Education, Research and Production, requiring as it does a fundamental transformation of the teaching learning process in higher education institutions and the establishment of new and diversified relations between these institutions and the productive sector and the community, is fraught with difficulties would hardly occasion surprise. That is why the working paper of the 1980 Seminar envisaged the following problems and difficulties:

> "The change in attitudes in favour of the combination is the first and the most important barrier to overcome. In this way many prejudices and the lack of confidence need to be disposed of:
>
> 1. The reluctance to accept an additional burden and intensified work involved in new activities and in adaptation to new conditions.
>
> 2. The mistrust on the part of the academic staff as regards the ability of the production specialists to teach.

3. The apprehension on the part of the university staff that the presence of the business representatives in the institutions' governing boards would be an encroachment to the academic freedom and the university's autonomy.

4. The lack of confidence on the part of the community and the general public in the ability of higher education institutions to improve their performance, etc.

The change in attitude cannot occur suddenly. It will take a long time, and only in the process of practical work that new attitudes will form. The process may be stimulated by means and dissemination of information on and greater publicity given to the experiences in this area, practical seminars to exchange the experiences, establishing a dialogue between higher education institutions and the production sector, etc.

Another series of problems to settle would relate to organizational measures involved in the setting up of co-ordination and advisory bodies at various levels as well as in the establishment of new structural units within both the higher education institutions and the production sector. Special legislative measures would also be required to govern the new relations between higher education institutions and the production sector. These may cover procedures for establishing the co-operation agreements, utilization of industrial specialists as teachers, the rights and procedure of election of business managers into the higher education institution governing boards, etc."

(Unesco Report, 1981:117)

To the above, one would add the legitimate concern of academics with the possibility of a shift in the educational emphasis in higher education institutions from knowledge for scholarship to knowledge for purely utilitarian purposes, with a consequent narrowing of the intellectual horizons of graduates (ibid.: p.14). A proper selection of topics for problem solving is needed to obviate this danger.

In this connection it may be useful to note the warning given to a CEPES seminar on the same subject against excessive emphasis on "utilitarian" disciplines as follows:

"If the courses are entirely determined by their immediate practical value to professional activity of adequate treatment of the methods and systematics of the discipline itself in its inner logical coherence. It was also pointed out that the higher education institution should resist pressure to give absolute priority to utilitarian disciplines to the detriment of the other disciplines. Indeed, extensive

teaching in the fundamental disciplines, coupled with practically oriented training, is a requirement of today.

Another obstacle to the realization of combination, is that it will require a considerable financial input involved in the extension of physical facilities, obtaining additional equipment, payment of salaries to the additional teaching personnel and in setting up the new programmes and projects. Initially resources from both the public and private sectors will be needed to make combination possible.

To summarize, using the working paper:

> "The achieving of the combination of education, research and production will require the concerted action on the part of all parties concerned; administrative teaching and research staff and students of higher education institutions; production sector personnel as well as on the part of the governmental services and community. The existing patterns of relationship between higher education institutions and production sector enterprises will also need a significant modification. To find additional resources in terms of time and effort will not be an easy task for people overloaded with their every day heavy responsibilities, in the first instance, for managerial staff in industry and for administrative and teaching staff of the universities. In view of this fact the implementation of combination could never become a reality if mutual interests of all those concerned did not stimulate their work in this direction."
>
> (Ibid.: p. 116)

But these are problems with which higher education and the productive sector must continue to grapple. As Mr. H. Foecke, Deputy Assistant Director General for Education, Unesco, pointed out at the 1980 Seminar on Combination: "Evidence of the lack of relevance of higher education to changing social needs is provided by the high cost of higher education, the failure to provide a kind of training which meets the needs of both society and individuals, and as a corollary of all ills, the unemployment or underemployment of a significant proportion of graduates: Although not all these ills can be attributed to higher education it is a primary responsibility of institutions of higher learning to display a high degree of sensitivity and responsiveness to the changing needs of society and the population and to change themselves accordingly" (Ibid.:p.8)

Much has already been achieved in the area of combination. Governments, policy makers, planners, higher education institutions, staff and students and the production sector must continue to examine ways and means of enhancing the formative value of higher education in terms of attitudes, skills and cognitive content as well as its relevance to work, including achievement of greater employability of students. Given the traditionalism of many universities in the developing world and the lack of resources to set up new institutions, developing countries have to face these issues squarely, since they

can ill afford to have large numbers of graduates inadequately prepared to meet the needs of production as they continue their battle towards development.

All concerned must therefore carefully examine and determine their commitment to the following premises which formed the basis of the recommendation of the 1980 Seminar and their implications:

1. institutions of higher education constitute a major resource for economic, social and human development, as well as for the continuing strength of all countries, whatever their stage of development;

2. institutions are such a resource because of their traditional dual functions of teaching and research;

3. if the teaching is to produce individuals who can directly contribute to national well-being and to mutual understanding and co-operation among all peoples, and if research is to lead to applications with a minimum of delay, it is necessary for institutions of higher education to provide for direct links to the other sectors of society in both their teaching and their research - something which would enable them to play a vital role in national development;

4. such incorporation should be a guiding principle of every modern educational system and one of the best ways of linking the goals of education to the requirements of society;

5. although the development of these links will require special efforts and some additional costs, particularly in the initial stages, the combination of education, research and production in a common strategy will lead to the realization of increased efficiency due to better utilization of the educational process, increased social benefits and more effective human development.

(Report on the Seminar to Study Formulae Combining Education Research and Production in Higher Education, Unesco, 1981:23)

International Recognition of Studies, diplomas and degrees

The steps which have been taken with a view to promoting the international recognition of studies, diplomas and degrees have generally been highly desirable. Still, several difficulties have stood in the way of achieving the international recognition of such qualifications. In the first place, there has been a strong tendency among authorities in various countries to use generic terms such as "equivalence of diplomas", "recognition of studies and diplomas", and "recognition of qualifications acquired", as though these terms are synonymous when in fact these terms refer to actions which are not

identical in scope (Guiton, 1977: 21). The authorities make a ready distinction between recognition for academic purposes and recognition for the purpose of practising a profession. Recognition for academic purposes has helped to establish continuity within a course or branch of studies, and between one country and other; but it only gives the recipient the opportunity to study in the host country, not the "right" to work.

At least seven problems or types of case have been wrapped up in the issue of recognition. They are as follows (ibid: 21-22):

1. Conditions of entry to higher education for foreign students who have successfully completed their secondary education in their own country.

2. Unilateral or reciprocal recognition or validation of degrees, diplomas or certificates already acquired in one country by students intending to continue their higher education in another, right up to the highest level of degree or qualification; conditions for progressing from a given level within one system of higher education to the next stage in a different system.

3. Unilateral or reciprocal recognition of the highest degree or qualification awarded, which has been gained by a foreign student wishing to undertake post-graduate studies or research work in the host country.

4. Recognition or validation by the competent authorities of the student's country of origin - and especially by the civil service authorities - of degrees or qualifications he has acquired abroad, for the purposes of grading or promotion in his country's public or professional hierarchy (this point is a crucial one for people intending to go into administration or teaching).

5. Validation of complete or partial studies carried out abroad - e.g. one year of medical studies - towards obtaining a final degree or qualification, especially a professional one, in the student's country or origin.

6. Validation of studies or further training courses undertaken by a person abroad within the lifelong education pattern.

7. Unilateral or reciprocal recognition of degrees or qualifications gained by a foreigner with a view to practising a profession in the host country.

The problems listed above have been listed in increasing order of complexity or difficulty. The last four problems have been much more difficult to solve than the first three, as Guiton (ibid: 22) has usefully pointed out:

> Most of the bilateral agreements that have been concluded to date correspond, to a greater or lesser extent, to the first three problems. They are capable of being solved without altering the actual structure of higher education either in the student's country of origin or in the host country. This is not true of the last four problems, which may have a significant effect on education; the fifth, in particular, entails harmonizing widely differing educational systems as far as both their ultimate goals and their cultural and social context are concerned. The fourth clearly has economic and social implications, since it affects the organization of public administration in different countries and raises the thorny problem of professional comparison and rivalry between those who have been through the educational channels of their own country and those who have had the benefit of study abroad. Finally, the last one raises questions concerning the safeguarding of professional interests in certain fields, the international balance of resources in the matter of intellectual and scientific expertise and the attraction exerted by certain countries in this respect, i.e. the well known phenomenon of the 'brain-drain'.

The question of the international recognition of qualifications, then, is a very thorny one. When the problems associated with the international recognition of studies are added to those mentioned above in respect of other aspects of the democratization process, it is evident that the problem of democratization is one which is on-going.

CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS REGARDING DEMOCRATIZATION

The Unesco documents contain several conclusions and recommendations regarding the democratization of higher education. We will focus on these conclusions and recommendations as they relate to premises and conditions necessary to foster democratization in our context of life-long learning. The nature of our analysis will change from being essentially descriptive to being critical and evaluative. In shifting to this type of analysis, we must make it clear that democratization of higher education is a normative concept, and that consequently it is necessary for authors to reveal their own attitudes rather than seek to hide behind a cloak of "objectivity" and "neutrality". We believe, like Werdelin (1981:72) that nobody can be absolutely objective and neutral, and that to hide one's attitudes towards the democratization of higher education would be to try to cheat the reader.

Not all of the authors of the Unesco studies on democratization of higher education would agree with the stance which we have just adopted. Some of them have accepted the myth of total objectivity and neutrality, with the result that it is extremely difficult to identify any conclusions reached, or recommendations made, in their studies. We therefore have a sizeably reduced number of documents with which to deal as far as conclusions and recommendations are concerned.

Having made these introductory statements, we can proceed with our analysis by identifying what appears to be the fundamental premise which is made either explicitly or implicitly in the various Unesco studies, documents on democratization of higher education. That premise, which we share, appears to be that the fostering of the democratization of higher education can only be meaningfully achieved when drastic changes are introduced in the structure and functions of traditional universities. This is in the first matter on which we must elaborate before we go on to specific conclusions and recommendations regarding access to and completion of higher studies, work experience and recurrent education, the value of alternative or non-traditional institutions in higher education, and life-long learning itself.

THE MISSIONS OF UNIVERSITIES

We do not need to deal with all of the relevant Unesco documents on the question of the missions of universities; for the insightful observations made by Baskin (1973) on American universities and by Dore (1978) as cited in Dickson (1980) clearly apply to many universities which have always occupied a position at the apex of the educational system, and have traditionally had elitist notions of the composition of their student bodies and of what such students should be taught. In his very useful sketch of the missions of American

universities, Baskin (1973:6) has pointed out that while American universities have been moving away from their traditional elitism in response to the societal demand that they assist in the performance of myriad developmentally-oriented tasks, the universities have been unwilling to be self-limiting and have ended up assuming a multiplicity of ill-defined missions:-

> American unwillingness to define and circumscribe its institutions of higher education in an era of rapid social change has been matched by university unwillingness to be self-limiting. Rather than carve out clearly identifiable missions, goals, student clienteles and academic orientations, American colleges and universities have each tended to respond to societal demands in similar ways and assume a multiplicity of ill-defined missions.

Baskin went on to speak very frankly about :

(a) what he termed the "pervasive mediocrity" of traditional university structures in the United States;

(b) the "presently confused" mission of the American university in a rapidly changing society;

(c) the failure of most American traditional higher education institutions to adapt their curriculum to the needs of the many adults who are turning to higher education for career training, re-training, and advancement; and

(d) the consequential growth of a movement for alternative structures in higher education in the United States

(ibid.: 6-16)

Many policy-makers and planners, and most of the authors of the Unesco studies on democratization, have assumed, either explicitly or implicitly, that what the existing systems of higher education need is the more effective co-ordination and integration of the university and non-university structures in higher education. That may well be so. However, the accompanying widespread assumption that the alternative or non-traditional institutions in higher education will provide an adequate response to the increased demands for democratization - even if the university continues to function in traditional fashion - is a highly questionable assumption. We will later deal at some length specifically with the alternative structures. We need to point out at this junction, however, at least two things.

The first thing which needs to be pointed out is that while it is important to have higher education institutions function as a system and to ensure that universities operate as part of an interdependent complex, the reality is that in many developing countries expansion of traditional university and college structures is still going on. The developed countries have made greater progress than

the developing countries in effecting a transition from the first phase of educational development (quantitative expansion) to the second phase (qualitative reform). But even in the developed countries the concern is still primarily with "access" or "who gets in" aspects of democratization, including access to university (Spaulding and Kargodorian, 1981:90).

The second thing which should be pointed out is that if we are serious about democratising higher education, we need to face up squarely to the fact that universities have power. A few authors have given it explicit mention. For instance, in their review of the literature on equality of educational opportunity and of numerous country and institutional efforts at democratization, Spaulding and Kargodorian concluded that while the diversity of reforms in higher education reflect concern on the part of governments and educational institutions for a more equitable society, it will not be possible to alter relationships which are based on largely unequal positions of power, income, and social status among adults, solely through tinkering with the educational system (ibid.: 94,104). To put it another way, there is a need for a total concern for presently marginal groups to be built into new economic and social priorities.

The Unesco study which contains perhaps the most explicit and useful statement on the power of universities, the basis of that power, and ways of reducing it, is that entitled "Study Service: Problems and Opportunities (1980). Appendix I of that document contains the following excerpt from a paper which Professor R.P. Dore prepared for the 1978 Vancouver Congress of the Association of Commonwealth Universities:-

> Universities like to perform screening and rationing functions. It gives them power. To reserve privilege for the qualified gives authority to those who can give and withold qualifications. But they are wrong. Universities will be better able to cultivate minds and spirit, to contribute to increased efficiency, to promote intellectual excellence, if they can extricate themselves as much as possible from the rationing function. Let them, to start with, refuse to give any of the used as proxy measures of 'general ability'. Let their societies seek other ways of deciding who is entitled to what job. The next step towards stripping the universities down for useful action would then be easy. If certificates were no longer formal prerequisites for jobs, we would be able to see how much of conventionally established pre-career qualifying courses - for accountants, for nurses, for teachers, for real-estate agents - were primarily for screening and rationing purposes, how much they were for essential knowledge transmission purposes and need to be retained as such - but not necessarily as pre-career, perhaps as recurrent mid-career upgrading courses. New career structures could emerge; all civil servants, for example, might start as clerks, the more able ones being promoted to higher ranks and having the opportunity of higher education to prepare for it. Doctors could start as medical assistants, with the most successful going on

> for further training. Universities and other institutions of higher education would have a much better chance of contributing to the development of human minds and spirits if they were not in the business of handing out tickets of entry to job competitions, but instead of giving vocationally useful knowledge to those already assured of a chance to use it, or just knowledge and skills and ideas to those who wanted them for their own sake.
>
> Such a restructuring would entail, doubtless, a reduced role for universities and smaller budgets. Doubtless so. And perhaps that would be no great disaster....

The emphasis is clearly on the effects of higher education, and specifically university education, on the equalization of life-chances. The burden is on the shoulders of those who would disagree with Dore to come up with a meaningful alternative, since there is universal agreement on the need for fundamental changes in the universities. When we discuss the value of the alternative structures in higher education, we will return to two issues of major importance mentioned by Dore, namely, increased efficiency and intellectual excellence. Let us now direct attention, however, to the conclusions and recommendations on access to higher education.

ACCESS AND WORK EXPERIENCE

The dominant trend in the various country and institutional attempts at democratization has been the provision of more student places. This "numbers game", as it may be called, needs to be understood for what it really is. The Unesco documents are unanimous in pointing out that while something has indeed been done to increase the access of adults and workers to higher education, much more needs to be done in order to achieve a genuine equalization of access. Werdelin's contribution to the debate has been particularly valuable, since his is of a kind of global character rather than a study of a particular country or institution. Witness the following point commented by Werdelin (1981:69):

> Planning is rarely of a kind which includes the working adult population as an untapped reserve of students to be trained for new future roles in society; in most cases the educational system is geared to young formally qualified students. Although some categories of workers, for example, teachers and civil servants, are often allowed to enter the universities for in-service training, most workers are excluded. Vocational training in manual fields is rarely undertaken at higher-education institutions; the Swedish Colleges for Advanced Vocational Technology, and some college courses in other countries form rare exceptions. The University is still more interested in training people for white-collare vocations....
>
> (Emphasis added).

In short, the persons who have the easiest access to higher education are still those who were traditionally defined as the ones who should be the principal beneficiaries of higher education, namely, young full-time students. The type of education which they receive is still largely academic. When we ask why it is that the traditional population group has continued to be the principal beneficiary of higher education, we must avoid giving simplistic psychologistic explanations. Admittedly, adults and workers continue to be under-represented in institutions of higher education partly because they lack self-confidence in the educational system, lack interest in looking for information, and so on (ibid.:67). This is one of the important points which was made, for instance, in the case study of the Arab region. However, these psychological constraints carry less explanatory weight than such outer constraints as the continued selection of students on the basis of social class, economic situation, geographical location, and so on (ibid.:67, 71).

Emphatically, then, the Unesco studies and documents have sensitized us to the importance of not "blaming the victim", so to speak, for the failure to achieve equality of access to and completion of higher studies. As Abrahamsson et al (1980: 13, 25-27) have pointed out, we need to probe into the reasons that individuals with less privileged backgrounds are less prepared to embark on a long education, and that individual self-selection among working-class people seems to play a critical function in any system of recurrent education. Even in Sweden, which has perhaps gone further than most Western countries in reforming its system of higher education, social background factors and the process of individual self-selection still play an important role in determining access to and completion of higher studies.

If we focus more directly at this juncture on the situation of higher education for working students, we find that the Unesco documents have, without exception, accepted the premise that work and life experience should be made an integral part of higher education. For instance, in the final report of the Unesco-sponsored meeting of the Committee of Experts on Post-Secondary Education for Persons Gainfully Employed, which was held in London in July, 1976, it was recommended that:

> Unesco should undertake and provide research with a view to widening the basis for entry into post-secondary education for persons gainfully employed, particularly for those with minimal formal educational qualifications, but with work and life experience.
>
> (Unesco, 1976:7)

Work experience in one form or another has also become, as we have seen, a defining feature of sandwich programmes, as well as of study-service programmes, even though in the latter case the "work" does not constitute paid employment.

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We can expect more and more countries to make "work experience" or "life experience", or both, a prerequisite for admission to and/or completion of higher studies. The rationale for such a move would be the very real need to bring about a higher level of integration of theory and practice. In this regard, however, policy-makers and planners would need to take care to avoid what may be described as merely "jumping on the band-wagon". For, as Abrahamsson et al have appropriately pointed out, the purpose of according work experience weight in selection is to find routes which facilitate the neutralization of the effect of social background, but the introduction of work experience as a critical factor of admission to higher education must arise naturally out of the demographic and economic conditions of the country involved (Abrahamsson et al, 1980: 6, 12) The same applies to the introduction of life-experience as a critical factor of admission to higher education.

Many more adults and workers will probably be able to complete higher studies if society will make more serious efforts to implement some of the recommendations contained in the Unesco documents. The untapped reserve of students to be trained for new future roles in society may be more effectively utilized if there is an implementation of the recommendations in the case study on higher education for workers in the European socialist countries, for instance. The various recommendations in that study included the following:-

> that external studies should be avoided except in particular cases and at very advanced levels;
>
> that under any part-time system with a shortened working week, courses should be scheduled in the morning rather than in the evening so as to reduce the physicalstrain on the students;
>
> that employed students should have sufficient practical training before going back to school;
>
> that students should be transferred from job to job within the enterprise as they progress in their studies;
>
> that part-time studies for working students should be more individualized than the full time programmes; and
>
> that the credit system should replace the semester system (See Tymowski and Januszkiewicz, 1976: 97).

We cannot over-emphasize the fact that differentials in class, status and power must be substantially reduced if practical recommendations of the type just mentioned are to make any meaningful contribution to the democratization of higher education.

THE VALUE OF THE ALTERNATIVE STRUCTURES

At this point we turn directly to the question of the value of the alternative structures which have been established in higher

education. The first, and perhaps the most important thing which may be said in this regard is that in an age when increased attention is being paid to life-long education - at least at the level of rhetoric - it is critical that a distinction be made between the goals of higher education and the goals of adult education. We know from the study by Abrahamsson et al that it has been the failure to make such a distinction which has contributed in large measure to the policy confusion in some countries for instance Abrahamsson et al (1980:25). Adult education has redistributive objectives, objectives which are closely related to the distribution of economic resources, and to effect redistributive goals different measures of positive discrimination must be implemented, such as special adult study assistance, outreach activities, financial support, and so on (ibid). We are thus faced with a very perplexing problem, which is, exactly what it is that the "higher" in higher education ought to mean. Patently, there is a need for a clear redefinition of the concept of higher education, so that this nebulous concept may be regarded as being wider and more useful than the traditional one.

In re-defining higher education, serious account should be taken of what may be called "the seven theses" advanced by Bordia on higher education in India, theses which appear to hold for most countries which have established non traditional institutions of higher education. These theses are as follows (See Bordia, 1977: 11-12).-

(1) That the dependence on government for finances tends to introduce an element of conformity into new institutions which tried to be non-traditional.

(2) That new institutions which dispense with the need to grant university degrees, without at the same time securing recognition of their diplomas and certificates from likely employers, are at a serious disadvantage.

(3) That a radical departure from the existing system of higher education can be sustained only if it creates its own sub-system.

(4) That the limiting factor in the measures which have been taken so far to democratize higher education is that there is an in-built pattern of continuing inequality.

(5) That the problem of the medium of instruction must be tackled.

(6) That innovations which ultimately benefit the affluent sections of society have an in-built advantage.

(7) That governmental financial support for higher education should perhaps not be linked with individual items of expenditure, but should be provided in a lump sum to be utilized as judged appropriate by the institution concerned.

The preceding seven theses have to do with the conditions necessary for fostering democratization. The first and last theses have to do with the politics of higher education and the issue of cost-efficiency. The second concerns the problem of certification, while the third and fourth concern the creation of a radically new type of system. The fifth - the problem of the medium of instruction - is no less important an issue, since language is a form of power, while the sixth brings us back face to face with the issue of wealth and power. Some brief observations on these theses will be in order.

Politics and Cost-Efficiency

In the Venezuelan case study, for instance, the fundamental assumption was made that non-traditional institutions such as the National Open University will prove to be less expensive than the traditional university structures. The experience of the British Open University suggests that this may be a valid claim for Open Universities. But, in Britain itself, increased governmental assistance to the alternative system has resulted not only in the "kinetics of convergence" but also in bringing to the fore the issue of who controls higher education. How the issue of the control of higher education will be resolved is a matter of conjecture. There are a few things which should be said though about the presumed cost-savings from the alternative structures.

Firstly, it is difficult to predict a sufficiency of funding for the alternative structures, and it should not be forgotten that the alternative structures tend to rely on traditional institutions in order to reduce operating costs. The following excerpt from Baskin (1973:52) on the situation in the United States is instructive in this regard:-

> If the experiments with new methods and structures look promising as educational ventures, much of their appeal has rested on the premise and promise that money can be saved. Nearly all of the programmes promise long term savings in the cost of education per student. They all base these premises on expected large enrolments, on savings resulting from decreased capital outlay for facilities and administrative overhead; and on savings resulting from expanding the definition of educational activity to include experiences of little or no cost to the universities. In considerable measure, all of the alternative university structures rely on traditional educational institutions, volunteer teachers and supervisors and other arrangements to reduce their operating costs. Whether in the long run such promised cost efficiencies will be achieved by any or all of the alternative university structures may depend on their ability to attract sufficient initial or start-up support.
> Predictions of sufficient funding are difficult.

Secondly, the elaboration of a method of determining the efficiency of higher education establishments is a very urgent matter. Here the views expressed in the case study of the USSR become very pertinent:-

> In outlining the tasks facing higher education, something must necessarily be said regarding the need to define the concept of the efficiency of higher education. The efficiency of higher education as a whole, as of individual higher educational establishments, should of course be understood as meaning the ability to satisfy the national economy's graduate requirements on a flexible basis and with as rational a use of manpower and material resources as possible. For this purpose, the State's interests must be reflected from the start within the higher educational establishment's structure. Regional interests must also be reflected: the territory to be covered by a given establishment and a guarantee that it will more than keep pace with the corresponding sectors of technology and of the national economy. Determining the efficiency of higher education calls for the definition not only of overall objectives, but also of individual functions and criteria as to the optimum to be aimed at in respect of each establishment, faculty, department, teacher, assistant and student, in relation to specific conditions. ... The elaboration of a method of determining the efficiency of higher educational establishments is an urgent task whose accomplishments will make a major contribution to planning the development of Soviet higher education.
>
> (Severtsev, 1976: 64-65)

It is clear that greater account needs to be taken of the interests of the state and of different regions in defining efficiency and that there is a need for greater specification of the objectives and functions of each sub-system in higher education. In this sense Baskin's consideration seems also pertinent. The extension of higher education opportunities to previously excluded groups has, as Baskin (1973: 50) has warned, "raised expectations that are unlikely to abate either in politics or in education". This means that the concern over cost-efficiency must be widened to include cost-effectiveness. On the other hand, it seems that a balance between social responsibility and individual expectations are desirable. There must, of course, be some attempt to re-distribute responsibilities in higher education. But it is also necessary to heed the warning from the Canadian case study that this process of re-distribution is filled with dangers if the basic issues of universal, individualized, productive and life-long education are not fully understood and the consequences widely accepted (Munroe, 1973:82).

INTERNATIONAL MOBILITY

The Unesco documents which we have sampled on the international recognition of studies, diplomas and degrees have all assumed that such recognition is an important element in the democratization of

higher education. We are in agreement with this since, for one thing, institutions of higher education - can only deal with a limited number of problems when they function as individual institutions. When institutions of higher education are considered as a system on the local, national and international levels, they can satisfy a wider range of needs and can attain greater goals. Indeed, this was one of a number of very important observations which were made at a Round Table on "The Contribution of Higher Education in Europe to the Development of Changing Societies". That Round Table was organized by the European Centre for Higher Education, and was held in Bucharest during September 21 - 23, 1976 (See CEPES, 1977: 14).

The Unesco documents have stressed the importance of exchanging ideas and experiences and the necessity of national and international co-operation, but they have also emphasized that the qualifications granted must have national validity. The committee of experts who met in Paris during December 12 - 16, 1977 to discuss "Making Life-long Education a Normal Part of University Life", was explicit on this point:

> The qualifications gained in higher education should be attested by the award of diplomas having national validity so as not only to confer rights to professional advancement but also to form the basis for an international system of reciprocal recognition of national qualifications. This would improve and promote the access of workers to post-secondary institutions through life-long education.
>
> (Final Report, 1978:11)

Guiton, in what is perhaps the most authoritative study on the subject, has pointed to emergent trends away from an obsession with "equivalence" and towards the evaluation of competence. He has suggested that the evaluation and recognition of qualifications can be seen and carried out from the point of view of three different types of mobility - "horizontal", "vertical" and "intersectoral" or "trans-disciplinary" (Guiton, 1977: 22). The question is whether these three types of mobility are, in the real world, as separate as Guiton seems to be suggesting.

As defined by Guiton, horizontal mobility refers to the movement of persons from one country to another, during a course or stage in their training, in order to continue their studies in the same field. Vertical mobility refers to the process in which persons move on to higher education in the host country after completion of secondary studies in the country of origin. Intersectoral or trans-disciplinary mobility refers to the movement from one branch of knowledge and competence, relating to various vocational activities, to another. These distinctions may be useful for analytical purposes, but for practical purposes it is necessary to recognize that inter-sectoral mobility often precedes or succeeds vertical mobility. What is more, if we are to accept Guiton's assumption that inter-sectoral mobility will develop more rapidly during the next few years (ibid), we need to be provided with hard information both on the "many specific instances" of such mobility and on the forces which are likely to

impact on them in such a way as to produce the result mentioned by Guiton.

On the basis of his analysis of the many signs of innovations to be seen in some of the existing or proposed procedures for the recognition of studies and diplomas - or what he has called "new avenues" - Guiton reached what is perhaps the most important conclusion in his study. That conclusion is that it is possible to evolve "a new instrument of evaluation and decision which will be better adapted to the growing demand for mobility during a career of study and training", and that it is possible to conceive of a document, based on an international model, which would make it easier to evaluate, less arbitrarily, the knowledge acquired by a person who has studied or pursued further studies abroad (ibid:122).

Guiton has made it clear that there is nothing new about the idea of an international document of the kind which he has in mind, and that the first signs of the idea were in the repeated proposal of the Council of Europe to introduce a "cultural identity card" for the purpose of facilitating the movement of students from one member country to another. The international document which Guiton is proposing is not intended to be exhaustive or prescriptive, but would contain the following elements:- personal charcteristics of the student; the specific aims of the study as intended by the authorities the content of the studies (major, minor and specialized areas etc.); the methods of learning and teaching; the system of assessment; the results (marks, distinctions etc.); abilities and aptitudes, experience and general ability to adjust to new studies; achievements (publications, participation in research projects etc.); linguistic knowledge and ability; and general observations and appraisal (ibid: 127-128). Such an "International Education Record Book" should, in the words of Guiton, be a "comparability qualification" which transcends regions and linguistic areas and can be used and understood in all countries" (ibid.: 128).

Guiton's proposal is one which seeks to be "culture-free". It is one which countries and regions may possibly adapt to their local situations, and which should be of interest to Unesco, given the Organization's search for a universal convention on studies, diplomas and degrees.

THE CREATION OF A NEW SYSTEM

There is widespread agreement in the Unesco documents that the growth of the alternative structures in higher education will foster changes in the traditional universities. Munroe is probably on very strong ground in suggesting that the universities will be called upon to spell out their objectives more clearly than they have in the past (Ibid: 77).

Universities can hardly be granted unlimited support and at the same time be allowed to determine unilaterally the vital policies on selection of students, approval of programmes, conditions of graduation and the distinction between "liberal" and "technical" studies (ibid. 65). We do not agree unreservedly, however, with writers

such as Baskin (1973:52) who have suggested that the trend toward diversification in higher education is stronger than the trend toward homogenization. In the developing countries in particular the "diploma disease" which shows little sign of abating and the use of the language of the super-ordinate group as the medium of instruction continue to be very potent homogenizing and centripetal forces.

A radical departure from the existing system of higher-education requires the creation of its own sub-system, that is, the creation or existence of an infra-structure of elementary and secondary schools to prepare students for the innovative higher-education institutions and to link the innovation with opportunities of employment and self-employment (Bordia, 1977:11). Moreover, given the persistent influence of social background factors on educational opportunity, governments may have, where necessary, to coerce institutions of good quality into genuinely looking after the needs of the weaker sections of the population (ibid.: 12), for the affluent members of society are always in a better position to take advantage of new institutions and technologies.

A study on the democratization of higher education over the last two decades is by definition a study of the changing role of higher education institutions in contemporary society. Some of the issues with which higher education institutions continue to grapple revolve around the question of how to 'creatively integrate new public service missions and new student bodies with their more traditional research and teaching efforts.' The CEPES symposium on "The Contribution of Higher Education in Europe to the Development of Changing Societies" concluded that what has changed is not the traditional functions of higher education, but the content of these functions. But, clearly in aligning the university more closely with social needs, it is also true to say that the community service function of higher education has been elevated to a more central position than has traditionally been the case. Community service must now be a prime concern of the traditional university, as well as of alternative structures.

It should be patently clear that the traditional concept of the university, with its emphasis on the autonomy of the institution rather than the spirit of service, requires reappraisal. The view has gained considerable currency that the university has to be transformed, the rigid singleness of purpose of its structures broken up, and the institution entrusted with far wider functions transforming it into a 'multiversitas' (Symposium of Lifelong Education, Unesco, 1978: 5). As the Committee of Experts on Lifelong Education said,

> "Recognizing that it has an obligation to perform a community service function, the university, in order to satisfy the needs of different sectors of society, should cease to be guided exclusively by its own structures and standards (Ibid,: p.11)".

As the university seeks to fulfil some of the most urgent social needs of the countries which support it, its missions will expand

and its priorities will change. What is important, as has already been stressed, is that the university does not adopt a number of "ill-defined" missions and perform all badly. Whether in industrialized or developed countries, the university will increasingly have to share its "missions", or at least some of the, not only with the rest of the higher education sector, but also with government, research institutions, industry and so on.

The higher education system is becoming increasingly complex and diversified. It comprises not only traditional university studies, but also every type of post-secondary studies, regardless of conditions of access. The concept of the university itself is becoming more and more difficult to define, and many higher education institutions of varying types exist in different countries today. The university's role in relation to these other institutions constitutes an important problem to which no clear or common solution has yet been found. This is therefore a problem which must be carefully studied in each country (CEPES Symposium, 1977:13). Closer links will therefore have to be forged between the university and non-university agencies, and in some cases the university will have to open its governing structures and planning committees to them - without losing control over academic policy or sacrificing standards.

The very evolution of science and of society demands that provision be made for the admission (or return) of citizens of mature years to the university for career training and re-training. The university can hardly remain the "private property of full-time students and of teachers narrowly specializing in their own fields of study." (Ibid:5). And just as efforts to link teaching, research and production in higher education have led to the participation of non-university personnel in planning (and teaching) the university's programmes, so will the education of persons of mature years increase the participation of these persons and their qualified representatives (Unions and the social and cultural organizations concerned) in the processes of planning and democratic formulation of social needs in regard to education (Ibid:11).

Recent trends suggest that the university will have to pay more attention than it has so far done to the needs, wishes and characteristics of potential students, to helping different social groups participate in their own education and to rendering a more "efficient service" to them. Not all will accept these. One of the university's greatest challenges as it tries to meet the needs of new clienteles and of society in general is to ensure that it is not merely making a "commercial response to ill-informed consumer demand or short-sighted political expediency" (Williams, 1977:145).

It is clear, too, that the university must defend itself against crass vocationalism. As the Committee of Experts on Making Lifelong Education a Normal part of University Life said:

> "considering the importance for the individual of realising his full potential in order to contribute to the socio-cultural and economic development of the community, higher education has a duty to set itself goals that are cultural as well as vocational, whatever the pressures put on it by

different groups in an effort to subordinate it to strictly economic development".

(Report on Lifelong Education, Unesco, 1981:10)

One further point which seems to be worth considering is that raised by Professor Gareth Williams in relation to the approach to course development in higher education in the context of lifelong education. His argument is that courses in higher education may be constructed in four main ways. They may be

(a) subject centred

(b) role centred

(c) student centred and

(d) community centred.

That is to say, the central focus of a course/programme may either be

(a) the claims of the discipline or

(b) the relationship of the course to the role a student may play, mainly in employment but also possibly in political, cultural or social life; or

(c) the implicit content of courses, the hidden curriculum, the affective as well as the cognitive components and the form as much as the content of courses for developing skills, interests and attitudes or

(d) the contribution which the course makes towards equipping students to tackle society's real needs and problems.

Professor Williams does not regard these four types of focus as necessarily incompatible, but he does suggest that if higher education is to make a major contribution to life-long education, the order of priority must be revised. He says:

> "First must come the broader needs of society (or the funds will not be forthcoming), second must come the needs of the students as individuals (or the students will not be forthcoming), third must be the needs of occupations (or again students will be deterred and employers will not give them support), and finally the academic should add the demands of the subject to ensure that what is taught has academic integrity."
>
> (Williams, 1977: 145)

We are far from sure that Professor Williams' thesis could be accepted as a general guideline, since it might, in some situations, result in the same thing which he wished to avoid, namely, courses which are "merely a commercial response to ill-informed consumer demand or short-sighted political expediency". What we can endorse

without much difficulty is the view that all four foci will require attention in future and that the balance between disciplinary and other considerations must be more carefully addressed.

The challenges which higher education has faced over the last few years, and is still facing, were well captured by the CEPES Symposium, as follows:

> "The new position of higher education, the link between education and employment, the development of science and changes in the student population, imply changes in the content of studies. in their organization and teaching methods. New subjects have been introduced at an unprecedented rhythm, thus putting pressure both on the traditional internal organization of higher education institutions and on the relations of the latter with other types of higher education establishments. Today scientific methods are undergoing considerable changes; new paradigms and procedures have been drawn up, not only in connection with certain isolated subjects, but to help human thinking as a whole. To sum up, the education system cannot only be considered as a component of changing societies, but is itself subject to change.
>
> (CEPES Symposium, 1977: 13)

While old traditions continue to be prevalent, the future will inevitably belong to structural changes in thinking and decision making and to those universities which are able to reform themselves. The training of university teachers will have to be so designed and organized as to enable them to adopt the behaviour and acquire abilities in keeping with the ideals of life-long education. The instruments of modern educational technology must be refined and more effectively applied. Some university administrators will need a re-orientation to the new missions of the university. Democratization implies and will continue to need increasing co-operation between higher education institutions themselves as well as greater mobility of teaching staff and students.

The boundaries of national educational systems will need to be progressively opened up, thus promoting the development of international systems, and all countries will need to make a determined effort to share their experiences with and to benefit from the experiences of other countries which have tried to democratize their education systems.

Concluding Remarks

This Digest does not claim to have examined all of the ideas and experiences in all of the documents which Unesco has produced on the democratization of higher education. We have not sought to be totally objective and neutral, for we do not believe in cheating the reader.

In our view, the democratization of higher education while being a global problem, is a particularly acute problem in the "developing" countries. These countries have a very serious problem in that unlike the industrialized countries, which have many universities, their relatively small number of universities pose the problem of how to reconcile the traditional missions of the University with the needs of non-traditional groups and the increasingly strong demands for the Universities to contribute to community and national development. It is doubtful whether a re-definition of the role of the university in non-industrialized countries will take place prior to the maturation of the rest of the tertiary-level sector, that is, Community Colleges, Teachers' Colleges, etc.

It will not be easy for the non-industrialized countries to shed the models of the University which they have inherited from the former colonial powers, and which have already become "white elephants". Perhaps these countries, and the industrialized ones as well, should fully exploit the potential of study-service programmes. This would give explicit recognition to the fact that education is a political and not a neutral process. University and non-university institutions of higher education also need to make clear decisions on what their position is in relation to recurrent education, and particularly to life-long education, in both the industrialized and the non-industrialized countries. Only time will tell how they will handle this.

No society is static, and both industrialized and the non-industrialized countries will continue to change. The competition between the traditional and the non-traditional sectors in higher education should be further stimulated, and the existing alternatives should be institutionalized, for reasons which have been given by Adamson (1978:108):-

> It is the qualities of difference and competition between two systems which produces progress; with the passage of time, and particularly in the circumstances of trends towards mass higher education, the differences become reconciled and a new monolith starts to appear, etc. The British experience suggests the validity and virtue of this process; the systems of one people can rarely be exported, but their experience can. The British experience suggests the merit of institutionalizing whatever alternatives exist in a given society. This will provide a much needed challenge to existing university institutions, but dynamic convergence and mutual development of both systems will commence from the moment of inception of the new form. Since there is no singular new form, but a series of forms historically dispersed (probably at diminishing intervals of time), it might be helpful if policy makers could see the morphology of higher education in this way.

We will end then by emphasizing that the problem of democratization of higher education is a multi-dimensional one, and that while efforts have been made to apply the concept, a great deal remains to be done. If this Digest has in any way helped to synthesize the various Unesco documents on democratization, and critically so, it would have achieved its purpose.

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